

FINANCIAL STATISTICS FOR A GLOBAL ECONOMY





THIRD ECB CONFERENCE ON STATISTICS 4 and 5 May 2006



FINANCIAL STATISTICS FOR A GLOBAL ECONOMY



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Address

Kaiserstrasse 29 D-60311 Frankfurt am Main Germany

Postel address

Postfach 16 03 19 D-60066 Frankfurt am Main Germany

Telephone

+49 69 1344 0

Internet

http://www.ecb.int

Fax

+49 69 1344 6000

Telex

411 144 ecb d

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FOREWORD

The series of ECB conferences on statistics has become an important forum for multidisciplinary, forward-looking exchanges of views among European and international statisticians and policy-makers. The third ECB conference on statistics, held in May 2006, addressed the topic "Financial statistics for a global economy". It provided a unique opportunity for the international statistical community to discuss both the statistical requirements stemming from globalisation and the consequences of globalisation for statistics with their main users, namely:

- monetary policy-makers, represented by members of the ECB's Governing Council, namely Vítor Constâncio (Governor of the Banco de Portugal), José Manuel González-Páramo (ECB Executive Board member responsible for statistics), Erkki Liikanen (Governor of Suomen Pankki Finlands Bank), Yves Mersch (Governor of the Banque centrale du Luxembourg) and myself, and by Henk Brouwer (Chairman of the International Relations Committee of the European System of Central Banks);
- representatives of banking and business associations (Hein Blocks and José María Róldan), who also reflected on the situation from the perspective of the reporting agents of statistical information;
- academia (Nouriel Roubini, Xavier Sala-i-Martín and Jan Krahnen), a key user of statistics for research purposes;
- the media (Simon Briscoe of the Financial Times), which are instrumental in disseminating key statistical information to the general public; and
- those who prepare monetary policy (Lucrezia Reichlin from the ECB and Marc-Olivier Strauss-Kahn from the Banque de France) or are in other ways at the heart of central banking (such as Már Gudmundsson from the BIS).

The conference was organised in four sessions:

- Are financial statistics good enough to capture globalisation?
- What are the challenges for national data collection in a global world?
- What are the statistical implications of financial stability and financial integration?
- What can we say about global statistical governance?

Almost all contributors to the conference spoke of the challenge of ensuring the cost-effective production of relevant statistics while still enhancing their quality and availability (e.g. for financial stability analysis) in an era of rapid globalisation and technological change. This book includes an overview chapter which summarises the contributions and discussions.

Euro area statistics play a crucial role in the ECB's policy-making and the analysis of the global economy. I consider that the key to meeting the statistical challenges from increasing globalisation lies in further enhanced international cooperation among statistics compilers and in a continuous cross-fertilisation between users and producers of statistics. I believe that this conference has provided a significant contribution to this ongoing process and I look forward to the next conference, which is scheduled for spring 2008.

Jean-Claude Trichet

President

SUMMARY OF CONTRIBUTIONS

STEVEN KEUNING AND LAURA VAJANNE

The theme of the Third ECB Conference on Statistics was the contribution financial statistics can make to assessing globalisation, the new statistical needs implied by globalisation, and the impact that it has had and will continue to have on statistics. Over the past decade, financial globalisation has posed increasing challenges for statistics. With the evolution of the international financial system, data demands for harmonised statistics have expanded. The aim of the conference was to provide a wide ranging forum for discussions of these issues among statisticians, policy-makers, researchers, representatives of banking and business associations, and media representatives.

The conference was opened by **José Manuel González-Páramo**, the Member of the ECB's Executive Board responsible for statistics. In his introductory remarks, he referred to each of the four sessions of the conference:

- 1) Are financial statistics good enough to capture globalisation?
- 2) What are the challenges for national data collection in a global world?
- 3) What are the statistical implications of financial stability and financial integration?
- 4) What can we say about global statistical governance?

Mr González-Páramo started by noting the remarkable progress that had been made in official statistics at the European level, although much further improvement is still needed. Furthermore in a global world there is, in many respects, an abundance and not a lack of information, so that official statistics should serve the need of users to distinguish between good and bad information and to access relevant information quickly and easily. Also needed is the ability to collate information from different sources without a high risk of misinterpretation.

For the second session Mr González-Páramo called for a discussion on possibilities for a cost-effective production of globally relevant statistics without compromising the quality. He mentioned the ECB's merit and cost procedure as a tool for deciding whether or not to introduce new European statistics. He also noted the possibility of using European sampling for European statistics, instead of the sum of purely national samples as a means of reducing costs without lowering quality.

Under the third theme Mr González-Páramo stressed the importance of financial stability for all central banks and its implications for statistics. Comparing the statistical framework underlying the ECB's monetary policy strategy with the statistical framework for assessing financial stability, he concluded that there

are many common elements, but the latter needs to be more disaggregated. The gradual development of a harmonised statistical framework for financial stability purposes remains a medium-term priority for the ECB. In a global economy, this work is best done through close cooperation between central banks, governments and international financial institutions. In this respect, he welcomed the initiatives taken by the International Monetary Fund (IMF) and the Bank for International Settlements (BIS).

Considering the fourth topic of the conference – global statistical governance – Mr González-Páramo emphasised its significance in responding to the challenge of globalisation. While the global statistical governance of official financial statistics has a solid foundation, the current arrangements are somewhat dispersed. He therefore welcomed the considerations being given by the IMF to the formation of an Intersecretariat Working Group on Finance Statistics.

The first session, *Are financial statistics good enough to capture globalisation?*, was introduced by its chairman, Governor **Erkki Liikanen** from Suomen Pankki – Finlands Bank. Mr Liikanen raised the issue of soft versus hard data, asking whether it is possible to also produce "soft" data on globalisation. With regard to global imbalances, views differ on the conclusions that can be drawn from the available statistics, which are not yet fully consistent themselves. Finally, it was highlighted how increasingly difficult is to draw national political conclusions only on the basis of national statistics. As an example, he mentioned that in Finland the largest bank is active in many countries, as is the largest commercial company.

The session then continued with a keynote speech by **Nouriel Roubini**, Professor at Stern School of Business, New York University. Mr Roubini pointed out that globalisation implies a greater integration and interdependence between countries, regions, markets and economic agents. It relates to growing international flows of goods and services and greater international flows of factors of production, both labour and capital. International financial flows have grown much faster than the trade in goods and services.

In recent years we have seen several financial crises in emerging market economies, the development of large global imbalances, a large accumulation of official foreign exchange reserves by central banks in Asia and in oil exporting countries, the growth of unregulated financial intermediaries such as hedge funds and offshore financial centres, the growth of derivative financial instruments with the concomitant risk of systemic crises and an increasing international tradeability of services. Better understanding of these phenomena requires better financial statistics.

Mr Roubini pointed out that such statistics are an important global public good in a world where cross-border financial transactions are becoming more and more important. Greater cooperation is needed between national and international authorities that collect and compile such statistics. Nevertheless, there are, of course, complex issues concerning the distribution of relative costs and benefits of more comprehensive financial statistics.

The second presentation of the session was given by Marc-Olivier Strauss-Kahn, Director General Economics and International Relations, Banque de France. He elaborated on some reasons for concern about the impact of globalisation on statistics, the scope and extent of the problems, and the avenues for further progress. Globalisation is very difficult to capture from a statistical perspective; if only because sizeable financial transactions pass through many channels and it is increasingly difficult to identify the "ultimate counterpart". Besides, there are numerous valuation problems. All this requires not only reliable and up-to-date financial data but also a continuous adaptation of methods and standards as well as of collection and compilation systems, while paying due attention to the reporting burden and the balance between merits and costs of the statistics. This may be facilitated by enhanced international cooperation and harmonisation. In any case, it is clear that financial globalisation calls for enhanced statistical globalisation. It also calls for modesty regarding the possibility to capture every significant development related to globalisation in statistics. Finally, it requires an ongoing dialogue between statisticians and their users.

The discussant, **Simon Briscoe**, Statistics Editor of the Financial Times, in his written contribution¹, confirmed that better data are needed as cross-border transactions become more important. Countries, primarily through their national statistical offices, need to consider these issues more actively and increase cooperation with their peers. The private sector, especially multinationals, need information on which to base their judgements and they should be encouraged to contribute to its collection. Those operating in financial markets should also be encouraged to cooperate with data collection agencies. The markets can go wrong due to poor information. Furthermore, international bodies need to be more flexible and to pursue harmonisation more efficiently.

The second conference theme, What are the challenges for national data collection in a global world?, was introduced by Vítor Constâncio, Governor of the Banco de Portugal. He pointed at comparison problems due to the fact that Europe is lagging behind the United States in applying techniques such as hedonic price deflation. More resources need to be allocated to statistics as a result of globalisation. Indeed, the production of statistics should be globalised. We have already seen pressure from ECB and Eurostat to harmonise statistics. National statistics may lose some part of their relevance, although national accounts at country level will remain useful.

The first speaker in this session was **Henk J. Brouwer**, Chairman of the International Relations Committee of the European System of Central Banks (ESCB) and Member of the Governing Board of De Nederlandsche Bank. In his presentation he asked the question: "Why does globalisation work, in statistics too?" The main topic of his address was the need for change in the world of statistics. Related questions which should be frequently asked are: "Can we manage with less?", "Where do we need more?" and "What do we really need?". Another important question is: "How can we improve the statistical process?".

1 Due to personal reasons, he had to cancel his attendance at the conference at the last moment.

Globalisation can be a driving force, for the simple reason that it invites us to embrace new ideas. For answering these questions he encouraged focusing on questions such as: "How does globalisation look in the world according to statistics?", "What are the consequences of globalisation for the world of statistics?", and "How could we streamline the statistical process?". The key issue in his view was how to find the right balance within a triangle of forces consisting of user needs, compilers' ambitions and the reporting burden. Balance and focus is what it is all about.

The second paper, *The need for reassessment and harmonisation of reporting requirements*, was presented by **Hein G. M. Blocks**, Chairman of the Executive Committee of the European Banking Federation and Managing Director of the Netherlands Bankers Association. He elaborated on the conference theme through the effects of globalisation on banks. There are three ways in which globalisation affects banks: 1) directly, via the flow of goods, financial capital and people; 2) indirectly, through the increasing reporting demands of supervisory and monetary authorities at national, European and international levels; 3) via requiring banks to adapt their business models in order to cope with the changing economic, societal and political environment. He saw a need for reassessment and harmonisation of the reporting requirements of banks. He also emphasised that banks are not against reporting requirements, statistics and supervision and that good information systems need good data to provide the basis for good policy decisions.

Mr Blocks' recommendations included the need to converge and harmonise the reporting requirements of the ECB with those of the IFRS and Basel II, in order to reduce differences in reporting requirements between countries, to promote the approach whereby the data that are already available in banks' internal management systems are used as the basis for the reporting formats of supervisors and the ECB and to make available a web-based system for the electronically delivery of statistical reports.

Discussant Lucrezia Reichlin, Director General Research at the ECB, pointed out that users should decide what the compilation of statistics should concentrate on.

During the conference dinner, a snapshot image of global issues was provided by Professor **Xavier Sala-i-Martín** from Columbia University. His presentation concentrated on crucial aspects of globalisation, namely the world's poverty and income inequality problems. He showed, with the help of statistical time series and a modern IT program, that even though world statistics are costly and difficult to grasp, there are possibilities to get a comprehensive picture of many complicated phenomena. His conclusions were that world poverty and inequality rates are falling, but Africa's growth performance remains a problem. It tends to generate more poverty, leading also to an increase in world inequality through its population growth.

The third session, *Financial integration and financial stability: statistical implications*, started with some introductory remarks by its Chairman, Governor

Yves Mersch from the Banque centrale du Luxembourg. He focused on the need for more standardisation, avoiding duplication, and a more efficient production of statistics. Statisticians should adapt as the world changes.

The first paper of the third session was presented by José María Roldán, Director General of Banking Regulation at Banco de España and former Chairman of the Committee of European Banking Supervisors (CEBS). He concentrated on a major issue in the EU context, namely that there are 25 countries asking for different information with different definitions and using incompatible formats. This is clearly incompatible with the objective of promoting integration in the financial services sector. Yet, there has been some progress in the EU banking sector to ease the current situation, namely the implementation of Basel II via the Capital Requirements Directive from January 2007 and the application of the IFRS in the EU banking sector since the beginning of 2005. These two developments mean that all supervisory authorities must change their reporting requirements, and they have been a driving force for convergence approach. The CEBS has, accordingly, taken two initiatives to promote common reporting for the EU banking sector: COREP, which is a common reporting framework for the solvency ratio under Basel II, and FINREP, which is a common reporting framework for financial information under IFRS. CEBS has decided to promote the use of XBRL (an eXtensible Business Reporting Language) in connection with both initiatives.

There are many benefits of such harmonisation, such as an enhanced competitive level playing field, as a result of having common reporting formats across the whole EU; reduced administrative costs for banking groups; and an easier exchange of information between supervisors. The compatibility of formats, content and information systems supported by XBRL will allow supervisors to collect information in a decentralised way, while at the same time providing functionality as if there was a centralised database and benefiting from additional flexibility. This will also contribute to increased cost-effectiveness of supervisory activities. In conclusion, Mr Roldán stated that the challenge is to obtain the best quality information, at the right time, and at the least cost to all parties. This is complex but we may find out that there are "quick wins".

The second presentation in this session, by Professor **Jan Krahnen** from the Johann Wolfgang Goethe University who is also Director of the Center for Financial Studies, concentrated on the statistical implications of monitoring credit risk transfer in capital markets. There has been a tremendous increase in risk transfer, particularly credit risk transfer between banks, enterprises and markets, and this is a challenge for supervision and financial stability.

In order to monitor risks in the emerging markets for credit derivatives, the exposure needs to be modelled. In particular the systemic risk of instruments should be estimated and risk markets will be comprehensively observed. The current problem is that there are almost no data available on risk transfer. Professor Krahnen made some concrete proposals on data needs. For instance, from banks one would need individual loan characterisation – maturities and

credit qualities – as well as portfolio characteristics such as credit exposure by industry and portfolio diversification.

Discussant **Már Gudmundsson**, Deputy Head of the Monetary and Economic Department of the Bank for International Settlements (BIS), provided a comprehensive review of both papers and also described risk and financial stability monitoring at the BIS. He stated that there might be alternative approaches to better grasp financial stability issues, without directly increasing data requirements. The key element is to have banks performing stress-tests on the basis of pre-defined assumptions and to deal with correlations across banks (i.e. by asking banks to simultaneously perform stress-tests with such assumptions).

In the general discussion, it was emphasised that, even though the increasing transparency is a positive phenomenon, it might increase risks and, thus, there may be exceptional cases where constructive ambiguity is more appropriate. Supervisors might need to have access to more sensitive information than markets. Better financial statistics are needed to better understand crises and imbalances in financial markets, but ambiguity cannot always be avoided in this field.

The final session, *Global statistical governance* was chaired by **Steven Keuning**, Chairman of the ESCB Statistics Committee and Director General Statistics at the ECB. He briefly introduced the subject before giving the floor to the Deputy Director General of Eurostat, Marie Bohatá, to present her paper. Ms Bohatá started with the importance of official statistics for monetary policy and the risks to decision-makers of the insufficient quality of statistics. In turn, statistical governance plays a crucial role when aiming at good quality statistics. Much progress has been achieved, but more needs to be done in this area.

Looking at the current governance structures for Community statistics, basically two lines of action are being pursued: the first is a top-down approach, with the Code of Practice at its centre, and the second is a bottom-up approach, with a series of practical (quality improvement) initiatives pertaining to national accounts, business statistics, labour market statistics and price statistics. The latter include all attempts at a closer coordination of statistical processes in Member States which goes beyond what is legally required.

Looking ahead, Ms Bohatá noted that the Code of Practice must be fully implemented at all levels of the system in the coming years. A major initiative to implement the Code at Community level will be the establishment of a European Statistical System high-level advisory body. Moreover, Eurostat will need to further clarify the official character of its statistics. The introduction of an "official statistics" label may help in this regard. Finally, in the somewhat longer term, Eurostat and the national statistical institutes must increase their systemic efficiency through closer cooperation and reduce costs by building a shared infrastructure in specific domains and for certain processes.

The second paper on global statistical governance was presented by **Robert W. Edwards**, Director of the Statistics Department at the International Monetary Fund (IMF). His paper reviewed the present international arrangements for the development, promulgation and implementation of international statistical standards in key areas of macroeconomic statistics and encouraged the adoption of best practices in national statistical systems. Mr Edwards concluded that key governance dimensions are the rapidly growing movement of goods, services, income, transfers, people and capital across national borders. Statistical methodologies appear reasonably well established for goods, services, income and transfers, albeit with some need for updating, mainly through the review of the IMF Balance of Payments Manual. The growing importance of remittances raises important issues of statistical concepts and compilation, which is being addressed under the auspices of a joint World Bank-IMF initiative. Very significant conceptual and practical issues arise in the compilation of migration statistics, which are also being addressed by the international community. Significant progress has also been made with regard to capital movements and statistics on international investment positions, but still much needs to be done. Particularly important will be the ability to reconcile the end position with that of the next period through a comprehensive recording of transactions, revaluations and other changes in the volume of assets and liabilities. More generally, the international statistical community has proven to be quite adaptable when meeting the demands of a world with constantly evolving social, economic, and environmental conditions. "Creative ambiguity" in governance arrangements will continue to be a hallmark for the future.

The discussant of the session, **Jan Smets**, Chairman of the Irving Fisher Committee on Central Bank Statistics and Board Member of the Nationale Bank van België/Banque Nationale de Belgique, pointed to the need for more transparency of statistics through appropriate metadata and a proper communication policy for revisions, as these may also lead to revised analyses. The need for coherent governance is highlighted in the need to synchronise the timing of the update of the System of National Accounts (SNA) and the IMF Balance of Payments Manual. Good statistics require competent staff working in a proper institutional environment and good international governance, also in order to ensure a better presentation of data. Although the involvement of national compilers may decrease, it is very important to keep people involved at that level. Mr Smets stressed the international role of the Irving Fischer Committee, which offers a platform for discussion.

The closing address of the conference, delivered by the President of the ECB, **Jean-Claude Trichet**, dealt with the development of euro area statistics from an ECB perspective and with the four themes discussed in the conference. He focused on the crucial role euro area statistics play in the ECB's policy-making and started with a brief review of recent developments in these statistics. An important milestone would be the first release of integrated financial and non-financial euro area accounts for the institutional sectors – households, non-financial corporations, financial corporations and government – and for transactions with the rest of the world. These euro area accounts will provide a wide-ranging overview of the euro area economy and enable a much more

comprehensive analysis of the interactions among sectors and between non-financial and financial developments. In turn, this permits an even more comprehensive cross-checking of the economic and monetary pillars of the ECB's monetary policy analysis. Furthermore, for the first time, these accounts provide users with regular key economic indicators for the euro area, such as household savings and corporate after-tax profits. They have been compiled in close cooperation between the ECB, NCBs, Eurostat and NSIs.

These and other recent enhancements of euro area statistics are not only of great importance for policy-making in Europe but also contribute to a better analysis of the global economy. As globalisation has intensified competition among countries, this has also led to an increasing emphasis on the administrative burden on business. Compilers of statistics should constantly attempt to minimise the costs for respondents and to make as much use as possible of already existing information. This requires, however, that statisticians have unrestricted legal access to all relevant administrative records, while of course maintaining their very strict confidentiality standards. Yet the high-quality statistics that are indispensable for the ECB's monetary policy unavoidably place some burden on businesses, including small and medium-sized enterprises. As regards the collection of data from the financial sector, supervisors and statisticians should intensify their cooperation in order to align, and wherever possible integrate, their data collection efforts to a maximum extent. He stressed that significant efficiency gains would also be reaped if sample sizes for statistics, particularly the very timely, high-frequency statistics, were attuned to European needs.

Subsequently, Mr Trichet mentioned that financial stability analysis puts new demands on data availability, if only because it requires consolidated data and strengthens the case for making available a whole range of micro-data. As an example of a tool that serves common interests, he mentioned the Centralised Securities Database, which provides an accurate representation of individual securities issued, or potentially held, by euro area residents. Another requirement for financial stability analysis is related to the increasing tendency to transfer risks among institutions and among countries. This also points to important remaining gaps in current euro area statistics, particularly concerning insurance corporations and pension funds, the collateralisation of lending business, investment funds, and special purpose entities.

Speaking about good governance, Mr Trichet stated that governance is particularly important for statistics that are directly used for administrative and policy purposes in Europe, such as the indicators for assessing the convergence of EU Member States that are not yet in the euro area and the statistics underlying the excessive deficit procedure. While Eurostat is responsible for these statistics, it can benefit, when deciding on conceptual issues, from the considerable statistical expertise available at the ECB, NCBs and NSIs, as brought together in the Committee on Monetary Financial and Balance of Payment Statistics (CMFB). He also stressed that the compilation of government finance statistics – and all other statistics for that matter – should not be subject to political considerations. The compilers of these statistics must act in full

scientific independence, and the government must ensure that sufficient resources are made available for their task.

He closed the conference by asserting that the key to meeting the challenges from increasing globalisation lies in a further enhanced international cooperation among statistics compilers. Another key success factor is a continuous crossfertilisation between users and producers of statistics. The conference provided a significant contribution to this ongoing process.

Thursday, 4 May 2006

22:30

Back to the hotel

13:15-14:30 Registration 14:10-14:40 Coffee 14:40-15:00 **Opening remarks:** José Manuel González-Páramo, Member of the Executive Board, European Central Bank 15:00-16:30 Session I: Are financial statistics good enough to capture globalisation? Chair: Erkki Liikanen, Governor of Suomen Pankki – Finlands Bank Keynote speech: Nouriel Roubini, Professor of Economics and International Business, Stern School of Business, New York University Marc-Olivier Strauss-Kahn, Director General, Economics and International Relations, Banque de France Discussant: Simon Briscoe. Statistics Editor. Financial Times Discussion 16:30-17:00 Coffee Break 17:00-18:30 Session 2: Challenges for national data collection in a global world Chair: Vítor Constâncio, Governor of Banco de Portugal Henk J. Brouwer, Chairman of the ESCB International Relations Committee and Member of the Governing Board. De Nederlandsche Bank Hein G. M. Blocks, Chairman of the Executive Committee of the European Banking Federation and Managing Director, Netherlands Bankers' Association Discussant: Lucrezia Reichlin, Director General Research, European Central Bank Discussion 18:30 End of first day 20:00 Cruise on the River Main Dinner: Hosted by José Manuel González-Páramo Keynote speech: Xavier Sala-i-Martín, Professor at the Columbia University

16 PROGRAMME

Friday, 5 May 2006

09:00-09:30 Coffee

09:30-11:00 Session 3: Financial integration and financial stability: statistical

implications

Chair: Yves Mersch, Governor of Banque centrale du Luxembourg

José María Roldán, Director General of Banking Regulation, Banco de España, and former Chairman of the Committee of European Banking Supervisors

Jan Pieter Krahnen, Professor of Finance, Johann Wolfgang Goethe University, Frankfurt am Main and Director of the Center for Financial Studies

Discussant: **Már Gudmundsson**, Deputy Head of Monetary and Economic Department, Bank for International Settlements

Discussion

11:00-11:30 Coffee Break

11:30-13:00 Session 4: Global statistical governance

Chair: **Steven Keuning**, Chairman of the ESCB Statistics Committee and Director General Statistics, European Central Bank

Marie Bohatá, Deputy Director General, Eurostat

Robert W. Edwards, Director, Statistics Department, International Monetary Fund

Discussant: **Jan Smets**, Chairman of the Irving Fisher Committee on Central Bank Statistics and Director of the Board, Nationale Bank van België/Banque Nationale de Belgique

Discussion

13:00-13:20 Concluding remarks:

Jean-Claude Trichet, President of the European Central Bank

13:20 End of second day

13:30-15:00 Lunch

PROGRAMME 17

OPENING REMARKS

JOSÉ MANUEL GONZÁLEZ-PÁRAMO

Dear colleagues, fellow central bankers, ladies and gentlemen,

I would like to welcome you to this third European Central Bank (ECB) conference on statistics. It is already almost a tradition to hold such a conference every second year. While the subject of the first conference, organised in 2002, was "Euro area statistics: challenges for the future", and the second conference, held in 2004, dealt with "Statistics and their use for monetary and economic policy-making", this third ECB conference addresses statistics from a global perspective.

My predecessor as ECB Executive Board member in charge of the Directorate General Statistics, the late Eugenio Domingo Solans, concluded the second ECB conference on statistics with the words: "The development of European economic and financial statistics has been remarkable in the past years. I once called it a 'silent revolution'. ..., this silent revolution must now continue at an international level. The ultimate goal would be to reach a similar degree of harmonisation among large economic areas as there is within them." This is exactly the subject of our conference.

Indeed, at the European level, practically all official economic and financial European statistics follow international statistical standards. The methodologies applied, the frequency of compilation of statistics, timeliness and a number of other quality criteria are laid down in published supranational legal acts. The official European statistics are released by the ECB (Directorate General Statistics) and the European Commission (Eurostat) according to pre-announced calendars, together with an increasing number of methodological explanations and quality reports. The official European statistics can also be accessed free of charge. Compared with other economic areas, the European Union is a role model in the area of statistics.

Despite this remarkable "silent revolution" in the development of official European statistics, there is of course no reason to be complacent. Much can be improved and must be improved. The ECB conferences on statistics, involving statisticians, policy-makers and economic analysts are designed to contribute to this objective. I would now like to make some introductory remarks with reference to each of the four sessions of this conference, with the aim of stimulating debate.

SESSION I: ARE FINANCIAL STATISTICS GOOD ENOUGH TO CAPTURE GLOBALISATION?

Globalisation means that economic activity is less and less confined to national borders. There is an increasingly free worldwide movement of persons, goods,

services and capital. Companies do not only decide to which countries to export, and from which countries to import, goods and services, but they also decide in which countries to manufacture goods and to provide services. Private households can shift their financial portfolios not only between a wide range of financial instruments, but also between currencies and debtors, and this continuously and worldwide. Globalisation has been supported by favourable political developments, by (in relative terms) decreasing transportation costs, and by the provision and availability of information at low cost via the internet.

What is the role of official financial statistics in a world of economic globalisation? The answer is certainly not to provide each individual piece of information on the financial sphere. This is, to a large extent, the task of the private financial sector. Moreover, there is, in many respects, not a lack of information. On the contrary, the enormous amount of information available requires the ability to distinguish between good and bad information and to access relevant information quickly and effectively when needed, as well as an ability to collate information from different sources without a high risk of misinterpretation.

Official financial statistics in a global economy should, in my view, provide a worldwide information infrastructure on all financial stocks and flows at an aggregated level, and relate those financial aggregates to the statistics on the (non-financial) economic activity.

Is it reasonable to assume that official financial statistics can provide a world-wide information infrastructure capturing, on an aggregated level, all stocks and flows of financial assets and liabilities for all economic agents? The answer is yes! The agreed concepts are already part of the System of National Accounts adopted by the United Nations Statistical Commission. Are these financial balance sheets and accounts already implemented for the most important economic areas in the world? The answer is not yet; implementation is rather uneven. The ECB has published parts of the financial balance sheets and transactions for the euro area on a quarterly basis since 2001. A complete information set is scheduled for spring 2007. At that time the quarterly financial statistics will be complemented by quarterly economic statistics to form the quarterly euro area accounts. A first annual information set of this kind will already be published in the forthcoming weeks. The ECB cooperates closely with the European Commission (Eurostat) in this field.

While the euro area accounts will follow the – globally agreed – international statistical standards, this is not always the case for the accounts of other economic areas. In order to enhance the transparency of the official financial and economic statistics provided, to facilitate meaningful comparisons between the economic areas without costly adjustments, and to minimise misinterpretation, it is preferable that all statistical compilers adhere to the globally agreed standards closely.

Let me, at this juncture, emphasise the following point. The euro area accounts statistics will complement and not substitute the current ECB monetary and

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financial statistics. While the latter are typically compiled on a monthly basis, the euro area accounts will be available quarterly, with a delay of three to four months. The euro area accounts will provide a broader picture, in particular a set of financial and economic accounts for the "households" sector and the "non-financial corporations" sector.

Official financial statistics for the major economic areas that comply at an aggregated level with the System of National Accounts will certainly facilitate the analysis of the globalisation process. They will also benefit from the well-developed economic terminology of the System of National Accounts, a precondition for effective worldwide communication. Obviously, more in-depth analyses may require more detailed official financial statistics taking into account the institutional arrangements in the different economic areas.

SESSION 2: CHALLENGES FOR NATIONAL DATA COLLECTION IN A GLOBAL WORLD

While the official European statistics are made available by both the ECB and the European Commission (Eurostat) free of charge, they nevertheless cost taxpayers money. Moreover, the collection of basic information directly from the reporting agents, mainly financial and non-financial corporate and unincorporated enterprises, is part of the administrative burden, albeit a very limited one.

Obviously, official statistics have many merits. It is therefore of utmost importance to establish procedures whereby the usefulness of new statistics and their cost are weighed up before deciding whether or not to introduce them. It is however even more important to review the stock of existing statistics from time to time and decide which to cease compiling. This applies to both the more recently established European statistics, and national statistics which, in many cases, were established some time ago.

The ECB carries out an internal "merit and cost" procedure when deciding whether or not to introduce new European statistics. The European Commission (Eurostat) is developing such a procedure in close cooperation with the Council of the European Union as regards their part of the European statistics. I am confident that these procedures will, in the near future, improve the availability of the statistics required and phase out bygone priorities.

The recent discussion on the administrative burden sometimes gives the impression that there is a direct relationship between users' statistical requirements and the burden for the economy. This is not the case. It is also appropriate to review the production function for official statistics. Three types of possible "technical progress" may be distinguished: statistical, organisational and IT-oriented progress.

At the start of European Economic and Monetary Union, the production of European statistics had, for practical and political reasons, to be organised as

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an aggregation of national results. In cases where statistics are based on sampling, and where the European statistics matter in the first place compared to national results, a European sampling will significantly reduce the sampling size without compromising the quality of the European results. While the national statistical authorities, typically the national central banks for financial statistics, will continue to collect the basic information from the reporting agents, the reduced sampling size will be determined according to a European sampling scheme. This proposal was already made by the ECB five years ago and followed a benchmarking exercise on infra-annual economic statistics between the European Union and the United States. The practical implementation of European sampling is, however, still in early stages and must be accelerated.

Furthermore, the basic idea underlying European sampling of vertically integrating the production process for certain official statistics may be expanded upon. In a globalised world, it is simply not appropriate for many infra-annual economic and financial statistics to separate the production process by compiling, first, results for the regional or even local level, to use these results for the compilation of separate national results, to use the national results for the compilation of European aggregates, and to forward the European aggregates for use at worldwide level. The statistical production process, and not only the development of statistical concepts, must be more closely coordinated between the regional, national and European levels. There are already some promising examples, such as the Centralised Securities Database (CSDB) project launched by the European System of Central Banks.

I would like to go even one step further. A stronger vertical integration of the production process for certain official statistics does not, in itself, determine what is produced first, the regional result or the European result. We seem to be used to a bottom-up approach. Statistical literature tells us, however, that the more reliable results are those at the more aggregated level. In particular, national accountants usually produce the high-level aggregates first before breaking them down into more detailed results. Owing to the overarching requirement for consistency, the compilation of a certain statistic must either follow the "bottom-up" or "the top-down" approach. Globalisation frequently requires information first and foremost on the development of an economic area as a whole.

In addition to the vertical integration of the statistical production process, there are other measures to be explored in order to mitigate the statistical burden when complying with user requirements. Examples are a good horizontal coordination between different statistical authorities in order to avoid collection of similar or even identical basic information from reporting agents, the use of administrative sources for statistical purposes following strict confidentiality rules, the translation of similar user requirements into integrated reporting forms, and the application of electronic and web-based reporting.

Finally, I would like to repeat that the current discussions concerning the administrative burden should in no way call into question the merits of official economic and financial statistics. These discussions are no excuse for business,

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including small and medium-sized enterprises, to reduce their efforts when responding promptly and correctly to the statistical surveys currently in place.

SESSION 3: FINANCIAL INTEGRATION AND FINANCIAL STABILITY: STATISTICAL IMPLICATIONS

Central banks and governments around the world are paying more attention to the macroeconomic and institutional developments that pose potential risks to financial stability. It is worth recalling that, historically, one of the main reasons for establishing a central bank was for it to act as lender of last resort. Compared to the objective of monetary stability, in other words price stability, the conceptual and statistical framework underlying the central bank objective of financial stability is less well developed.

The ECB does not limit financial stability to banking stability, although the financial stability of the banking sector is crucial for the soundness of the financial corporations sector as a whole. Against this background, the ECB relies on macro-prudential indicators, for example with respect to credit developments and competitive conditions. Many of these macro-prudential indicators are derived from consolidated banking statistics. It is also important to monitor closely the other financial corporations, in particular insurance corporations and pension funds. This was one of the conclusions of the second ECB conference on statistics, which is currently being followed-up in close cooperation with the European Commission (Eurostat).

Compared to the statistical framework underlying the ECB's monetary policy strategy, the statistical framework for financial stability must be more disaggregated. While some of the statistical requirements for financial stability purposes overlap with those for the monetary policy strategy, this is by no means always the case. The gradual development of a harmonised statistical framework for financial stability remains a medium-term priority for the ECB. In a global economy, this work is best done with close cooperation between central banks, governments and international financial institutions. In this respect, I welcome the initiatives taken by the International Monetary Fund and the Bank for International Settlements.

SESSION 4: GLOBAL STATISTICAL GOVERNANCE

As I mentioned previously, official financial statistics for a global economy must be transparent, comparable on a worldwide level and trustworthy. This requires some global statistical governance.

The community of official statisticians is, in general, well organised on a worldwide level. Since the beginning of the 1990s, a substantial number of international statistical standards have been established around the centrepiece, the System of National Accounts. Examples of related standards are manuals

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for balance of payments statistics, monetary and financial statistics, government finance statistics and external debt statistics.

The System of National Accounts is prepared by five international organisations with the support of an advisory expert group. It is adopted by the United Nations Statistical Commission, in which member countries are typically represented by the head of their national statistical institute. Most of the related international standards are developed on the initiative of one or several of the international organisations, of which the International Monetary Fund is particularly active. Official financial statistics are also discussed by the OECD Statistics Committee and in different forums of the Bank for International Settlements. Moreover, the international quality assurance frameworks are promoted and coordinated by the Committee for the Coordination of Statistical Activities. The ECB, represented by its Directorate General Statistics, is one of a small number of central banks worldwide to contribute actively to the global statistical standards and governance.

While the global statistical governance of official financial statistics has a solid foundation, the current arrangements are somewhat dispersed. I therefore welcome the considerations given by the International Monetary Fund to the formation of an Intersecretariat Working Group on Finance Statistics.

I assume that the global statistical governance for official financial statistics will be guided by the Fundamental principles of official statistics and the related Principles governing international statistical activities, to which the ECB has subscribed. In this context, I would like to close my introductory remarks with reference to a principle that was of utmost importance to Eugenio Domingo Solans: the independence of statistics and statisticians from policy-makers. Let me quote from his speech entitled "Official Statistics for a Global Economy", delivered at the 54th session of the International Statistical Institute in Berlin 2003: "Independence and fairness in providing the data must not only rely on the professionalism of the experts, but should also be based on an appropriate organisational framework. Statistical information is so powerful that regardless of the good will of the persons involved - which I take for granted institutional arrangements should make it impossible to speculate on what, how much and when statistical information is disclosed. Against speculation, standardisation is the specific name that fairness takes when we consider the appropriate treatment that statistical information should receive."

Ladies and gentlemen,

It gives me great pleasure to declare the third ECB conference on statistics open. I trust the discussions will prove stimulating and fruitful.

Thank you for your attention.

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I ARE FINANCIAL STATISTICS GOOD ENOUGH TO CAPTURE GLOBALISATION?

ERKKI LIIKANEN

Recently I have encountered statistical problems caused by globalisation in three different fora:

- 1) Monetary policy decision-making in the ECB's Governing Council is inevitably largely based on early soft data, and the more thorough hard data that follow play a complementary role and provide more detail. It would be tempting to apply the same procedure to the analysis of globalisation. However, because of the multidimensionality and structured nature of the phenomenon, this might be overly challenging.
- Should priority nevertheless be given to producing soft data using new systems?
- Hard data could continue to be based on old systems, but its cost will rise sharply. In the case of hard data, the focus should remain on the most fundamental statistics, such as national account aggregates.
- 2) In the IMF context, global statistics are assessed. What level of accuracy is required in the statistics? Even global imbalances, currently considered a key problem of global economic policy, particularly regarding the US current account deficit and debt position, are marked by uncertainty. This is reflected in the statistical discussions concerning their actual magnitudes.
- According to the statistics, the US net international investment position is negative, amounting to about 25% of GDP. However, it has been argued, on the one hand, that the net position is actually positive, and, on the other, that it is clearly more negative than the statistics suggest. Differing assessments have also been made of the US current account deficit some clearly larger and some smaller than the level revealed by the official statistics.
- If such serious problems exist with major aggregates, what is the credibility and analytical value of the more detailed items?
- 3) Last but not least, as the Governor of Suomen Pankki Finlands Bank, I recognise that, particularly in a small open economy like Finland, major enterprises and national statistical authorities have fundamentally different interests vis-à-vis information needs, making the production of statistics difficult and tying up resources for all parties concerned. In Finland, the most important financial institution with the predominant market share is a multinational European company and the largest enterprise is completely global, extending well beyond Finland.

 It is virtually too much to hope that the operations of multinational conglomerates can be accurately apportioned between home and foreign activities. This has recently led the Finnish statistical authority to a major revision of GDP and current account statistics.

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NOURIEL ROUBINI

INTRODUCTION

My perspective on the topics of financial statistics needed to capture globalisation is the one of a user of financial statistics, not as a producer of them. Users of financial statistics include individuals in the policy arena (governmental and inter-governmental organisation), in the academic world and in the private sector (both financial and non-financial sectors).

To understand whether financial statistics are good enough to capture globalisation we first need a definition of globalisation, in its real and financial aspects. Globalisation implies greater integration and interdependence between countries, regions, markets and economic agents. It relates to growing international flows of goods and services and the greater international flows of factors of production, both labour and capital. It is important to note that international financial flows have grown much faster than real flows related to trade in goods and services; thus, in a sense, financial globalisation is even more widespread than real globalisation.

DEVELOPMENTS - PAST AND FUTURE - IN THE GLOBAL ECONOMY THAT REQUIRE BETTER FINANCIAL STATISTICS

There have been many developments in the global economy in the last decade that require better financial statistics. These include: the financial crises in emerging market economies; the large global current account imbalances and the risks of a disorderly rebalancing of such imbalances; the accumulation of official foreign exchange reserves in amounts that are unprecedented that have been financing such imbalances; the growth of unregulated financial intermediaries (such as hedge funds) and offshore financial centres whose activities are not fully transparent; the growth of derivative financial instruments (options, futures, credit derivatives, etc.) that are increasingly traded internationally; the risk of systemic crises (such as financial contagion in emerging market crises or the near default of a huge hedge fund such as LTCM in 1998) that may be related in the future to the growth of financial instruments such as credit derivatives; the global housing bubble of the last decade and the need to understand the causes behind it; the increasing tradeability of services and the need to better track trade in services and the international financial flow that come with such trade.

Thus, a better understanding – for policy-makers, academics and private sector practitioners – of these phenomena requires better financial statistics. Then, let us consider the phenomena considered above and understand how they affect the need for better financial statistics.

FINANCIAL CRISES IN EMERGING MARKET ECONOMIES

In the last decade, many emerging market economies (Mexico, East Asia, Brazil, Argentina, Turkey, Ecuador, Uruguay, etc.) have experienced financial crises. These crises were a combination of currency, banking, corporate and sovereign debt crises. The causes of such crises were complex and multiple including macro and financial weaknesses (for example large external imbalances, fixed exchange rates and overvalued currencies) such as balance sheet vulnerabilities (for example currency and maturity mismatches and excessive reliance on foreign debt relative to equity) and the behaviour of investors whose rushed exit from such markets exacerbated the financial distress of these vulnerable economies. Among other factors, the lack of transparency about economic and financial data (foreign reserves, asset and liabilities of the sovereign and of the various sectors of the economy) contributed to exacerbating the crises: in doubt about whether a country was illiquid or insolvent, many investors decided to exit and rushed to the doors, triggering a worse financial stampede. Indeed, having learned the lesson that a lack of transparency leads to trigger-happy investors, in the aftermath of these crises there has been greater transparency by governments and greater provision of data to markets and investors.

But a full and systematic assessment of risks in emerging market economies – say by following a balance sheet approach to crises – requires much more detailed financial information such as: aggregate and sectoral (government, households, financial sector, corporate sector) data on domestic and foreign assets and liabilities; data on assets and liabilities by a residence principle for the creditors and debtors; data by the maturity composition of assets and liabilities; data by the currency composition of assets and liabilities; data by debt and non-debt nature of assets and liabilities; data on implicit liabilities and assets of various economic agents and sectors in the economy. Indeed, some meaningful progress has been made towards providing financial data that allow a better assessment of risks faced by emerging markets (for example the joint IMF-WB-OECD-BIS project data on external debt by maturity and currency). But significant gaps remain in the existing data compared to the requirements listed above.

GLOBAL IMBALANCES AND THEIR ORDERLY OR DISORDERLY REBALANCING

In the last decade we have observed the emergence of large and growing global current account imbalances, with the United States running the largest deficit and being the largest borrower (and net debtor) and most of the rest of the world running surpluses and financing the US deficits. These imbalances have led to a heated debate on whether the rebalancing from these imbalances will be orderly or disorderly. According to some, there is a significant risk of a disorderly rebalancing with a hard landing for the US dollar and the United States and global economy.

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Different theories and arguments have been presented to explain the causes of such imbalances: the US twin fiscal and current account deficits; a global savings glut; a global investment drought; excess savings by the corporate sector in the G7; a Bretton Woods 2 regime of mercantilist undervalued currencies in China and other emerging market economies; demographic factors; structural rigidities leading to high savings and low consumption in China; a foreign investors' demand for high yielding US assets and the need for international diversification of financial portfolios; the low spending of the oil price windfall by oil exporters; the existence of "dark matter".

To better test these different hypotheses about the cause of these global imbalances and to better assess the risks of a hard landing, we need better data on savings and investment (both at the aggregate and sectoral levels) and better flow and stock data on the financial flows that finance these imbalances, including errors and omissions data. For example – to test for dark matter and demand for diversification – we need better international asset and liability data that correct raw measures for various valuation effects (deriving from changes in currency values, changes in interest rates and changes in the market values of equity/FDI flows). We also need better capital account data on the national source of the capital flows coming in and out of individual countries. For example, oil-exporters' financing of US current account deficits is increasingly indirect – via the United Kingdom or offshore centres – rather than through direct purchases of US assets by such energy exporters. It is thus hard to track the financing of global imbalances via the existing financial data.

LARGE ACCUMULATION OF OFFICIAL FOREIGN EXCHANGE RESERVES BY CENTRAL BANKS

In the last few years the accumulation of official foreign exchange reserves by central banks – in Asia, oil exporting countries and other emerging market economies – has been massive (several trillion US dollars). There is a wide debate on the reasons for this accumulation: is this self-insurance after the liquidity crises of emerging market economies in the last decade; or is due to mercantilist exchange rate policies that keep currencies undervalued to achieve rapid export led growth (the Bretton Woods 2 hypothesis)? Whatever the reasons, central banks are now major players in the forex market: in the words of Bill Gross of Pimco – one of the largest world bond funds – they have now replaced the private sector "bond vigilantes".

But there is still a major lack of transparency about such reserve holdings. Only a small number of central banks report their forex reserves with information on the maturity, currency composition and asset composition of such reserves. Today we do not even know the world aggregate – let alone country-level – currency composition of foreign reserves between US dollar assets and other currencies assets (euro, yen, British pound, etc.). Authors such as Ted Truman have argued that greater transparency by central banks would be very helpful in preventing forex market volatility that is driven by lack of information about central bank reserves and their diversification strategies. But complex political

and economic obstacles are present to the idea of providing greater forex reserves information to markets and investors.

There are also major statistical holes in the data about reserves and capital flows. For example, there is a huge gap between US data (from the US Treasury TIC database) on the official purchases of US assets by foreign central banks and the data reported by the IMF and the BIS on the accumulation of foreign reserves by various central banks; the US data are systematically lower than those reported by the IMF and the BIS. Also, the financing of the US current account surpluses by the oil exporters is a black hole as balance of payments data by these countries on their capital account and their allocation of official and private foreign assets to different countries is very spotty. This may be one of the gaps in the US TIC data, as such oil exporters most likely use intermediaries – the UK financial system and offshore centre – to accumulate US assets.

GROWTH OF UNREGULATED FINANCIAL INTERMEDIARIES (SUCH AS HEDGE FUNDS) AND OFFSHORE FINANCIAL CENTRES

In the last decade we have observed a sharp growth of unregulated financial intermediaries (such as hedge funds) and offshore financial centres (OFCs) whose activities are not fully transparent. There is an ongoing debate on whether hedge funds should be or should not be regulated (either directly or indirectly). This is a complex and controversial issue. My view is that hedge funds are becoming too large and too important (as the assets they manage are now in the trillions of US dollars) and too mainstream (as the pool of agents investing in these funds expands) to leave them largely unregulated. Ideally, indirect regulation and some reporting of their activities to regulators and disclosure of their activities to market participants are necessary as a first step to understand their activities and limit the vulnerability to systemic risk of their activities.

OFCs have become more transparent over the last few years – as the OECD's pressure on them intensified – but there is still much more to do to understand their activities and role in international financial intermediation. There is also a greater need to better track money laundering activities, some of which occurs in such OFCs.

GROWTH OF DERIVATIVE FINANCIAL INSTRUMENTS AND RISK OF SYSTEMIC CRISES

In the last few years we have seen a phenomenal growth of derivative financial instruments (options, futures, credit derivatives, etc.) that are increasingly traded internationally. There is also an increasing risk of systemic crises (financial contagion in emerging market financial crises, and the near default of LTCM are recent cases). Such systemic risk may be related in the future to the growth of financial instruments such as credit derivatives.

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While it is hard to assess where the next systemic crisis may emerge, there are four possible triggers: 1. A corporate credit event (such as a GM or Ford Chapter 11 credit event) or a spate of corporate bankruptcies if the US economy experiences a sharp slowdown that triggers re-pricing and stress in the credit derivatives market. There was such a mini-crisis in the spring of 2005 with the Ford/GM downgrade fallout. 2. A US housing slowdown or bursting of the housing bubble that puts pressure on the Mortgage Backed Securities (MBS) market given the hedging portfolio and decisions of the large Government Sponsored Enterprises (GSEs). 3. A disorderly adjustment of the US dollar and spike in US long-term interest rates if markets/investors seriously worry about the un-sustainability of the US current account deficit and of its "twin" fiscal deficit. 4. A 1987-style stock market collapse triggered by negative surprises on US economic growth, rising tensions about a trade war with China and growing geostrategic tensions.

Right now many of these new financial instruments that have mushroomed in the last few years (credit derivatives, ABS and MBS, internationally traded derivatives on foreign currency markets) are a bit of a black box. We do not have exact data on many of these instruments – as they are traded in unregulated OTC markets; we do not know whether the trading of such instruments allows greater hedging and risk diversification or, whether, it is leading to greater concentration of risk (credit risk transfer problems); and we do not know the systemic risks involved in the growth of such instruments. At the very least, greater data on the trading – domestic and international – of such instruments would help to assess the risk of systemic events in the financial markets.

INCREASING INTERNATIONAL TRADEABILITY OF SERVICES

Recently, we have observed an increasing international tradeability of services, including the phenomenon of offshore outsourcing. Such a trend will grow sharply in the next decade as the growth of information technologies will make an increasingly larger number of services tradeable. We thus need to better track trade in services and the international financial flow that come with such trade. Often, we do not know whether the errors and omissions in balance of payments data come from unrecorded current account transactions (including – increasingly – trade in services) or whether they come from unrecorded capital account transactions. As trade in services will grow sharply in the future, it is essential to get proper statistics on such trade and the international financial flows associated with it. Otherwise, current accounts and capital accounts of the balance of payments will become increasingly imprecise and poor sources of information on the sustainability of external imbalances.

CONCLUSION

There is a serious need for better financial statistics in an increasingly globalised world. There is a significant global public goods nature of such statistics in a world where cross-border financial transactions are becoming more and more

important. Thus, there is a need for greater cooperation between national and international authorities that collect and compile such statistics; greater sharing of information is essential even if, often, national authorities are somehow territorial about sharing such economic and financial data and information with foreign and international authorities. There are also, of course, complex issues of the relative costs and benefits of greater financial statistics and who should be paying for such costs. But the need for better data to capture financial globalisation is undeniable and should be on the agenda of international economic and financial cooperation.

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MARC-OLIVIER STRAUSS-KAHN

INTRODUCTION'

To discuss globalisation we first need to give a definition, albeit tentative, of the concept, i.e. the trend towards greater interdependence and integration between different economic areas, markets and institutions around the world. Over the past few decades, this trend has been evident in the increase in multinational companies setting up affiliates abroad instead of simply exporting part of their output. But globalisation has been far more marked in the field of capital markets. Financial statistics capturing globalisation therefore correspond mainly to data on international capital movements and cross-border positions, as well as on the related income flows between countries.

Capturing globalisation is important from both a macro-economic and financial stability perspective. While appropriate data and early indicators are of crucial necessity during financial crises, they are also useful during less troubled times. Nonetheless, gauging globalisation and its implications with the aid of good quality statistics on financing, investment and cross-border transactions remains a challenging task. Indeed, the goal is to prove wrong Benjamin Disraeli, who allegedly said that "there are lies, damned lies and statistics".

This paper will therefore focus on the main causes for concern in this respect, before assessing the extent of the problems and exploring some avenues for further progress.

I WHAT ARE THE MAIN CAUSES FOR CONCERN?

Let us first consider why there are gaps and screens and whether they matter.

I.I Why are there screens and gaps?

The roots of the problem are that:

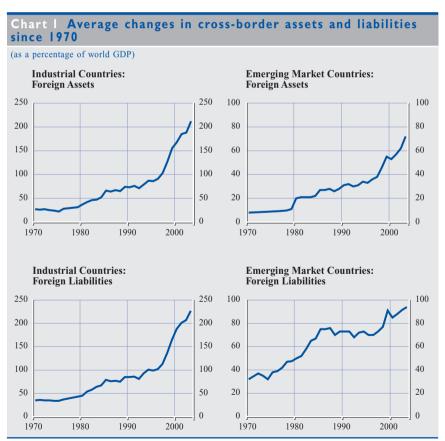
- a) information on cross-border operations does not match national statistics;
- b) new operations and new players make things more complex at the global level.
- I would like to thank Jean-Charles Bricongne (Monetary Studies and Statistics Directorate) and Jean-Guillaume Poulain (Balance of Payments Directorate) on whose work I drew heavily, as well as Olivier Cousseran (Monetary Studies and Statistics Directorate) and Pierre Sicsic (Balance of Payments Directorate) for their fruitful remarks.
- In his autobiography, Twain wrote: "Figures often beguile me, particularly when I have the arranging of them myself; in which case the remark attributed to Disraeli would often apply with justice and force: 'There are three kinds of lies: Lies, damned lies and statistics.'" However, no one has been able to find evidence that the British Prime Minister ever made such a remark.

I.I.I Cross-border operations: foreign direct investment

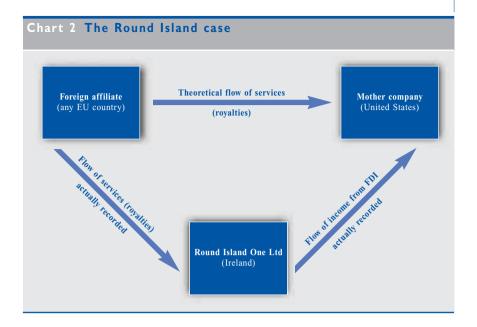
Thanks to the reduction in barriers to inward and outward flows, globalisation has provided an opportunity for international corporations to expand worldwide more easily. Cross-border flows and the associated financial positions are growing at a fast pace (see Chart 1)³.

In this regard, foreign direct investment (FDI) is certainly the most useful indicator for monitoring economic linkages between home and host economies. However, new methodological problems affect the interpretation of FDI, such as identifying who is the ultimate investor within large corporations and how Special Purpose Entities (SPEs) should be recorded. SPEs, as well as shell companies, are indeed a good example of the "screens" generated by globalisation, through the proliferation of intermediate vehicles created for various purposes: management and organisation, financing, tax circumvention or evasion, etc. These screens make life more difficult for statisticians. For instance, tax-related constraints are one of the incentives for FDI localisation.

3 As a result, the forthcoming European Union Community Statistical Program foresees the need for a European Register of Multinational Groups ("Eurogroups").



Sources: IMF, International Financial Statistics; IMF, Balance of Payments Statistics; Lane and Milesi-Ferretti (2005); and IMF staff calculations.



These are the consequence of national decisions, which create distortions, sometimes leading to a re-allocation of flows.

As a result, statistics on international financial flows do not always give a good picture of reality. In the case of Round Island One Ltd (an Irish company collecting the revenues linked to Microsoft user licences in Europe), revenues which should, for example, be recorded from France to the United States as a flow of services under the item "royalties or license fees" are divided into two flows: one from France to Ireland, as royalties, and one from Ireland to the United States, as income from direct investment, even when no actual dividends are paid to the mother company.

Another statistical problem related to FDI is that the distinction between "green field" and "brown field" investments⁴ is not appropriately captured. Moreover, measures of inputs processed and outputs produced by foreign subsidiaries, such as employment and value added, fall outside the scope of FDI statistics⁵.

I.I.2 New operations and players

Against the background of increasing competition between "over the counter" (OTC) and regulated markets, tailor-made financial instruments for trading, hedging or arbitrage purposes are not always well-captured. Other instruments such as Medium Term Notes (MTNs) issued by banks, non-financial

- 4 "Greenfield", i.e. a financial investment by a company to build up a project in basic components such as factories, and "brown field", i.e. when a company purchases existing production facilities.
- 5 The FATS (Foreign AffiliaTes Statistics) will be a useful tool for measuring the process of relocation of output factors by international groups: see "Offshoring", F. Drumetz, Banque de France Bulletin Digest No 133 January 2005.

corporations and even various public entities have also developed without being fully covered by national statistics.

Furthermore, while innovative transactions and complex structured financial products enable credit risk shedding among many economic agents, making financial markets more "complete", the question of tracking flows and positions – in order to know where the risks and rewards have gone – still remains.

Moreover, new players have emerged within or across borders. For instance, the decline in French resident intermediation may be explained by the increasing role of non-resident counterparts as holders of marketable instruments issued by residents as well as the internationalisation of banking books and securities portfolios held by domestic credit institutions⁶. As a result, non-residents would need to be split into different sub-entities, making it possible to assess the increasing role of specific players, such as pension funds or hedge funds, whose investment strategies and the speed with which they can shift their portfolios can be quite different from those of banks or insurance corporations.

Lastly, in a monetary union like the euro area, bonds issued by the various governments are increasingly traded across borders thanks to the disappearance of foreign exchange risk, while the difference between them is tending to become blurred. As a result, national balances of payments record more and more crossborder flows insofar as residents buy "foreign" bonds and non-residents buy domestic bonds. However, portfolio arbitrage transactions may reverse these flows within a year and eventually leave the net position of residents unchanged.

1.2 Do screens and gaps matter?

Improved statistics are required in order to:

- understand what is happening;
- assess the risks; and
- agree (or not) on the need for action.

1.2.1 Understanding what is happening

Let us take the case of global imbalances between the United States and the rest of the world, and the extent to which there is a savings glut or an investment strike outside of the United States. It is important to properly assess the causes and the extent of such imbalances before evaluating whether the latter require any policy action and, if so, what kind of action.

6 Cf. "Évolution du taux d'intermédiation financière en France (1994-2004)", Boutillier and Bricongne, Banque de France Monthly Bulletin, February 2006.

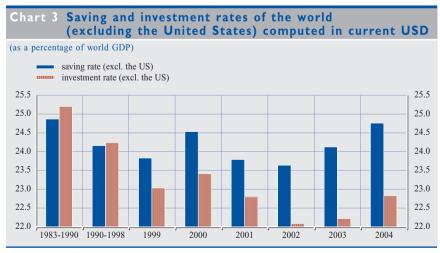
Until recently, data were presented in terms of Purchasing Power Parity (PPP) and showed a savings glut outside of the United States. However, in terms of global financing, a dollar is still a dollar. PPP tends to exaggerate the weight of excess savings in several regions. When computed in current US dollars, which seems to be more relevant since what matters is the actual amount of available funds, the assessment is somewhat different (see Chart 3). Indeed, Japan, the euro area and emerging Asia excluding China appear to be more "investment strikers" than "savings gluttons" whereas oil producers and China are in an opposite situation (see Chart 4)7. This example illustrates the fact that proper statistical conventions are essential to understand what is happening.

1.2.2 Better assessing the risks

Cross-border flows involve international corporations as well as financial institutions. For example, the monitoring of international liquidity through the deposits side of the Locational Banking Statistics (LBS) of the Bank for International Settlements (BIS) is quite useful because cross-border, inter-bank deposits may turn out to be a potential cause of financial instability since they can fuel speculative bubbles and play a role in the international transmission of financial turbulence.

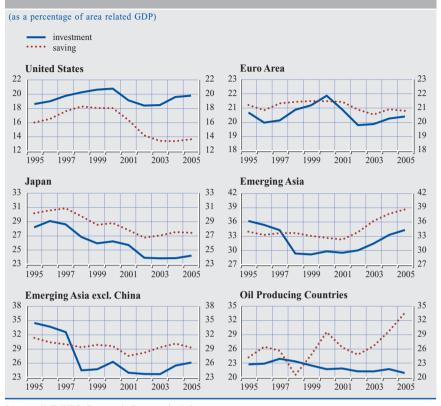
However, beyond inter-bank deposits, significant progress regarding statistics still needs to be made in other areas. A major issue in this respect relates to credit risk transfer instruments (mainly OTC credit default swaps and structured finance products, such as cash or synthetic collateralised debt obligations (CDOs)). In the case of CDOs, the magnitude of the outstanding amounts already issued and the widening range of investors involved may raise concerns about the potential implications of these highly leveraged and complex products for financial stability.

- 7 Cf. "Global imbalances, savings glut and investment strike", Moëc and Frey, Occasional Paper of the Banque de France, February 2006.
- 8 Cf. "The CDO market: functioning and implications in terms of financial stability", Cousseran and Rahmouni, Financial stability Review, June 2005.



Sources: IMF WEO, Banque de France calculations





Sources: IMF WEO, Banque de France calculations

1.2.3 Agreeing on the need for action

Potential risks may call for pre-emptive action by the relevant authorities, such as central banks, supervisors or market regulators. Assessing the causes of a problem is a necessary, although insufficient, condition for agreeing on whether and how to react. Some may argue that market forces should be relied upon without the need for intervention. Unfortunately, full reliance on market discipline is inadequate, as shown by several examples of sovereign defaults and bankruptcies of private entities over the last decade. In each case, the lack of transparency and notorious deficiencies in terms of financial disclosure were part of the problem.

In addition, we should not prepare to fight past battles. Obviously, policy-makers need statistics that are relevant and comprehensive enough to be able to learn from the lessons of the past. However, they also have to adopt a focused and forward-looking approach, especially when financial stability is at stake. In short, they have to prepare for the unexpected.

2 WHAT IS THE EXTENT OF THE PROBLEM?

Prior to devising ways of solving problems relating to financial statistics, it is necessary to properly identify their extent: in particular, who does what, and how much is at stake.

2.1 Who does what?

There are at least two questions to be addressed: first, who are the ultimate counterparts of financial transactions, and, second, given the role of intermediaries, where are risk exposures concentrated within the financial system?

2.1.1 Who are the ultimate counterparts?

Ideally, comprehensive counterpart information (i.e. "from whom-to-whom" information) based on accounting data and/or "security-by-security" or "loan-by-loan" information, while being a prerequisite for consolidating figures, provides very useful insights into the relationship between investors/creditors and issuers/borrowers. For example, this approach has become standard for the compilation of financial accounts in the euro area.

However, it may sometimes be difficult to identify the ultimate investors/ creditors and/or the ultimate issuers/borrowers. As regards, for instance, the share of foreign/domestic and private/public holders of US securities, the TIC (Treasury International Capital) monthly survey on securities transactions cannot provide information on the ultimate holders outside of the United States, since the respondents are US brokers and dealers. Moreover, gross US purchases of foreign stocks and bonds do not fully cover some transactions, such as acquisitions of US companies by foreigners who finance their purchases through exchanges of stocks. This is why there are important discrepancies between the US TICS and the US balance of payments data⁹.

In addition, as long as some countries do not participate in harmonised data collection, there will continue to be persistent statistical gaps on securities holdings, for example as regards securities (e.g. European Medium Term Note (EMTN) and OTC products) held with foreign custodians outside the issuer's country.

Admittedly, the International Monetary Fund (IMF), thanks to the Coordinated Portfolio Investment Survey (CPIS), helps to track the nationality of the ultimate holders of cross-border portfolio assets ¹⁰. Nevertheless, CPIS data suffer from the fact that some emerging countries such as China and major oil exporting countries do not report to the IMF. Some important gaps therefore still remain and complicate

- 9 In November 2006, the coverage of the TIC statistics was expanded in order to reduce these discrepancies. They now include a "Total net TIC flows" item compiling flows data relating to asset-backed securities, equity exchanges linked to mergers and acquisitions, money market instruments and net changes in deposits and loans in US dollars of resident banks vis-à-vis non-residents.
- 10 Portfolio assets are broken down by country of issuance, and the IMF reconstructs the reporters' liabilities.

the tracking, for example, of petrodollars. This issue is currently all the more relevant since the amounts at stake are substantial due to rocketing oil prices and the correlated accumulation of current account surpluses in oil-exporting countries since 2003 (0.6% of world GDP, i.e. twice as much as in the early 1980s).

As regards issuers/borrowers, it is also essential to gauge default risks on an aggregated basis, by sector (such as sovereigns, non-financial companies, banks, etc.) or by country (for instance, Argentina). The case of private entities warrants special attention, as it raises the question of another potential "screen", which stems from accounting and financial disclosure rules on which statisticians need to rely. Several cases of large corporate failures over the last few years have demonstrated that this global issue concerns all countries irrespective of the Generally Accepted Accounting Principles.

2.1.2 Where are the risks located?

Spotting large exposures within the financial system is key to gauging risks and vulnerabilities, including entities that are supposed to be "too big to fail". For instance, US Government Sponsored Enterprises (GSEs: Freddie Mac, Fannie Mae) have huge balance sheets and prominent positions as issuers, players in the mortgage-backed securities market and users of interest rate derivatives. Nevertheless, the financial disclosure of these "systemic institutions" would probably require further improvements, especially regarding the accounting treatment of their securities portfolio management and interest rate risk hedging activities.

Another example relates to the concentration of risk exposures in the credit derivatives market, where a handful of global investment banks play a pivotal role in trading and making markets for complex products that not only raise significant challenges in terms of valuation and risk management for these intermediaries, but also make any comprehensive mapping and macro assessment of risks within the financial system quite difficult.

The case of hedge funds is more puzzling: their reporting obligations, if any, are very light whereas they may take sizeable long and short positions in a variety of market segments. Therefore, an increasing number of highly-leveraged transactions, especially on derivative or structured finance markets and, thus, on the underlying cash markets, are not (or scarcely) recorded.

Last, but not least, offshore centres (e.g. the Cayman Islands or, closer to Europe, Jersey and Guernsey) host a large amount of financial activities such as debt issuance, bank deposits, securitisation schemes and asset management on behalf of hedge funds, or even of incorporated affiliates of large banks. Against this backdrop, the issue of the actual location of ultimate liabilities and risk exposures should clearly come under greater scrutiny.

2.2 How much is at stake?

At stake is not only the capacity to evaluate one type of transaction, but also the capacity to aggregate it across markets or countries and to follow it over time in a consistent manner.

2.2.1 Valuation problems

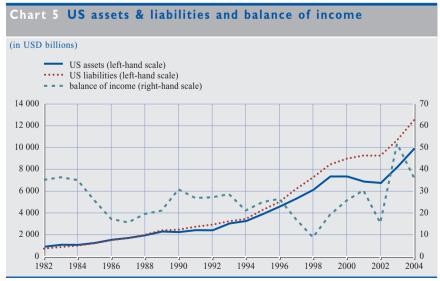
There are various valuation problems. The most significant relates to the gap between historical and marked-to-market values (especially for FDI positions). Certainly, the International Financing Reporting Standards (IFRS) represent a major step forward, although they may imply greater volatility of capital and performance, and the reference to fair value may be inappropriate for non-marketable assets, banking books or financial assets traded on markets that are not deep or liquid enough.

As illustrated by FDI, listed shares held abroad will be at market value, but unlisted shares will not. With historical values, some countries post a net debtor international investment position; all FDI at market value could shift the i.i.p. into a creditor position¹¹.

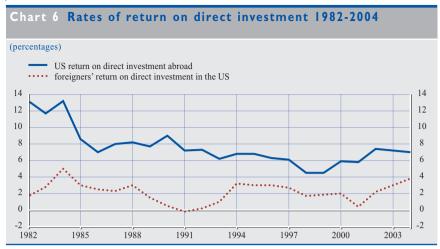
Another well-known example is that of the "balance of income" paradox of the United States. The United States is the world's biggest debtor, but still records positive net inflows on its investment income.

Recently, some economists suggested using income statistics instead. Applying a constant rate of return to the net figures, they concluded that the US economy had more wealth abroad than is recorded and that its international investment position should be positive. This invisible wealth (or "dark matter") is supposed to be mainly composed of intangible assets (such as knowledge).

11 Worse, some methodological changes in statistics may lead to potential inconsistencies. For instance, in the case of the FDI of an unquoted SPE which owns a quoted firm, the former will remain at historical value whereas the latter will be recorded at market value.



Source: Bureau of Economic Analysis.

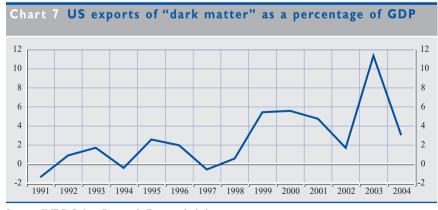


Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis. Note: From "Why does U.S. investment abroad earn higher returns than foreign investment in the United States?" Economic and Budget Issue Brief, CBO, 30 November 2005.

However, this assumption can be disputed in at least two ways:

- first, part of the difference of returns simply results from the differences in the structure of holdings: US residents hold more foreign equity securities, especially through FDI, whereas non-residents hold more US "risk-free" debt, the yield of which is lower;
- second, if "dark matter" does exist, its size should be quite stable as it would stem from structural features of the US economy, such as managerial knowhow; however, this item is quite volatile as shown by its huge fluctuations.

Indeed, the entertaining idea of a "dark matter" gives rise to another conundrum. If US productivity is supposed to be greater than that abroad, why is the return on FDI in the United States so low (see Chart 6)? Are foreign investors less smart than US investors, or is there a problem with US statistics?



Sources: IMF BoP data, Banque de France calculations.

2.2.2 Lack of consistent time-series

Long-span time-series, which should ideally be consistent at each level of aggregation and based on harmonised concepts whatever their scope, are difficult to obtain. For instance, given the time required to properly capture data on the newest financial products (e.g. OTC credit derivatives, synthetic and other structured finance instruments), time-series are still missing in many developed countries for a number of instruments and market segments.

Moreover, the issue of the consistency between stocks and flows might have remained hidden as long as stocks were obtained by cumulating flows. The consistency of the latter approach with market valuation is not straightforward. This is especially true for FDI, as market values are obtained using stock exchange indices to revalue previous stocks and then add flows. To make international comparisons more relevant, similar methods across countries and transparency are needed.

3 WHAT ARE THE AVENUES FOR FURTHER PROGRESS?

Two questions are considered here:

- 1) Who can help and how?
- 2) How can progress be made without going too far?

3.1 Who can help?

3.1.1 The role of the public sector

Globalisation should not conceal the fact that data on financial flows are collected at the national level. Indeed, there is a strong case for cooperation in this domain. Cooperation is being actively promoted by international organisations (e.g. ECB, Eurostat, IMF, OECD, BIS) or international groupings (G20, Financial Stability Forum), as well as regulatory bodies (e.g. EU Lamfalussy Committees). Nevertheless, there is no trade-off between increased cooperation and the need for proximity, which is best achieved at national level. This need is highlighted by the principles of subsidiarity and decentralisation enshrined in the EU legal framework, which stipulate that the national level should be preferred where possible, provided that it is more efficient. In this respect, national central banks and supervisors undoubtedly have the best knowledge of the financial systems and market players within their remit.

Two approaches usually help to reconcile the local and the global levels:

 fostering the exchange of information between national bodies, without any supranational umbrella. This is the case for financial supervision through Memoranda of Understanding; producing national statistics within an international system which promotes, at most, data harmonisation, at least, data sharing, and somewhere in between, standards and best practices.

First, data harmonisation is the most efficient means of aggregating information. However, the process has to be continuous to catch up with developments in the global financial system. For instance, the IMF is to release the 6th edition of its Balance of Payments Manual by 2008, which should reduce the differences between BoP data and national accounts. There should also be an updated SNA (System of National Accounts) manual in the next few years, which is expected to settle a large number of issues raised by financial innovation.

Second, the promotion of standards and codes of best practices should also be encouraged. As far as public accounts are concerned, the experience of Eurostat, which has been confronted with several difficult cases concerning a number of EU governments in recent years, has led for instance to the drawing up of a Code of best practice on the compilation and reporting of fiscal data. This will greatly contribute to enhancing the quality and reliability of statistics on public finances in Europe.

Third, data sharing is another way to improve the coverage and quality of statistics. In addition to the CPIS, there are several examples, such as the CDIS (Coordinated Direct Investment Survey, which is a similar forthcoming survey on FDI) or the CSDB (Centralised Securities Data Base)¹².

Likewise, data produced by the compilers of financial accounts at the national central banks of the Eurosystem and consolidated by the ECB also enable aggregated consistent data to be compiled, such as the Euro Area Accounts (EAA) and Monetary Union Financial Accounts (MUFA).

3.1.2 The role of the private sector

Although the role of the public sector is essential, the private sector can help, either through "gatekeepers" (e.g. rating agencies, professional bodies and financial analysts) or market players (e.g. exchanges, investment banks, brokerdealers, etc.). Efforts must, in particular, concentrate on transparency and financial disclosure¹³.

There are also many surveys by rating agencies, market associations, investment banks and data providers involved in market intelligence business. For example, credit rating agencies publish ad hoc surveys providing useful insights into credit risk transfers and the way the risk is passed from the banking sector to other

- 12 This database is shared by the Eurosystem as a whole and covers a wide range of information on securities issued by euro area residents and non-residents. It is intended to be used as part of the compilation of data on investment positions collected on a "security-by-security" basis.
- 13 The standard-setting contribution comes from or is enhanced by an imposing array of legal or regulatory requirements, e.g. the IFRS, Sarbanes-Oxley law, the EU Prospectus and Transparency Directives, the Basel II Third Pillar on Market discipline, etc. However, it will take time to implement them fully.

sectors, especially insurance or reinsurance companies, as well as hedge funds. This complements recent work by the BIS, which has started to publish specific statistics on foreign exchange markets and OTC derivatives markets, as well as statistics related to credit derivatives.

However, the private supply of statistics is primarily designed to meet investors' needs and is not always satisfactory due to partial coverage or lack of compliance with basic methodological and quality standards or consistency requirements.

3.2 How can progress be made without going too far?

3.2.1 What limits should be set on the reporting burden?

While the quality of statistics may be priceless, it nonetheless implies costs not only for compiling institutions but also for reporting agents. Against this backdrop, clear limits should be set on the reporting burden. It is necessary to identify the appropriate merits/costs ratio of any statistical process. In the same spirit, collection systems can be reviewed in order to adapt them to the reporting agents' information systems, which can yield both improvements in terms of data quality and a significant reduction of the reporting burden. One example of this approach is the option to collect data relating to securities portfolios on a "security-by-security" basis, which seems to be easier to implement for reporting agents provided that the collecting institution deals with all the subsequent tasks (e.g. aggregates and breakdowns by sector or by country). That said, in the case of financial accounts, compiling comprehensive data on financing and investment flows from issuing and holding sectors does not necessarily involve systematically collecting "security-by-security" information. More aggregated data derived from the accounts of the holding sectors may satisfy such a requirement.

Another concern relates to the selection of data reporters. There are two opposing approaches: compulsory or voluntary. The compulsory approach may seem to be the safest way to obtain harmonised data in time. Nevertheless, harmonisation cannot always be achieved in the short term. Moreover, if there is a risk that the burden for both compilers and reporters exceeds the advantages, a voluntary approach should be favoured. For instance, a survey of the (70) biggest hedge funds has been proposed by the IMF, on a voluntary basis. In the same spirit, the Financial Soundness Indicators developed under the aegis of the IMF for more than 60 countries, including a wide range of emerging market economies, are based on the collection of a voluntary set of macroeconomic and financial statistics along with a core set of benchmarks indicators.

3.2.2 How should information and costs be shared?

Since the quality of data is crucial, whether the users are market analysts, academics, journalists or policy-makers, five criteria are usually put forward:

- integrity: objectivity, transparency and ethics need to be respected while collecting and compiling data;
- methodological soundness: data compilation must abide by international rules and criteria and any exception must be notified;

- accuracy and reliability;
- serviceability: relevance, timeliness, consistency and periodicity; and
- accessibility of data for users.

While complying with quality standards as well as confidentiality requirements (especially as regards individual data underlying statistical aggregates), statisticians should do their best to allow potential users to have access to the widest range of series. However, given that quality is costly, the issue of cost sharing arises: who should pay? Should users pay or, at least, contribute? Insofar as statistical information about financial flows is a "public good", public financing may be justified. Mixed formulas are also conceivable, e.g. through the system of foundations.

Nevertheless, academics should not be viewed merely as end-users, but also as the best partners for interaction with public and private entities, contributing to improving existing data and exploring further ways to progress. This is the reason why central banks are very keen to open their doors to the academic world. These concerns (dissemination to end users, optimal access for authorised researchers, etc.) are also addressed in the European Statistical Programme for 2008/2012 currently under preparation, confirming how important they are in the European Union.

CONCLUSION

It is not easy to capture globalisation from a statistical perspective. It requires reliable and up-to-date financial data, constantly adapting methods and standards, as well as collection and compilation systems, while paying due attention to the reporting burden and the balance between merits and costs. This may certainly be facilitated by enhanced cooperation or harmonisation at the international level.

Clearly, financial globalisation calls for enhanced statistical globalisation and further efforts towards better statistical governance. This requires inter alia an ongoing and trustful dialogue between statisticians and all their counterparts, from policy makers, through reporters from the financial community and experts from the academic world, to the media or the public at large.

COMMENTS

SIMON BRISCOE

I am very sorry that, due to personal reasons, I am not able to be at the conference with you. But I thank you for the invitation to the event and the chance to offer some thoughts, as discussant, on the two interesting papers that have been presented to get proceedings under way.

"Are financial statistics good enough to capture globalisation?" was the question posed for this session. "No" seems to be the clear answer. Both speakers set out why this is the case.

Defining globalisation is not easy. At the highest level of definition – the integration of economic activities, across borders and through markets, and the increasing extent to which economic agents in one place are affected by events far away – it is clear that we lack adequate data. How can we have confidence in policy-making and strategic decisions?

My FT colleague, Martin Wolf, in his book on globalisation, sets out four essential features of the modern economy – and perhaps these are what we need to make sure we measure properly – the corporation, innovation and growth, intellectual property, and functioning financial markets. In some areas we are not bad but the gaps are clear too. The OECD says that traditional statistics do not suffice in a changing world, new concepts need to be identified, defined and explained, a higher premium should be attached to comparable statistics. The organisation notes that the opening of capital and product markets and developments in information and communication technologies, as key drivers, need to be measured.

Mr Strauss-Kahn and Professor Roubini expanded on a handful of the developments that have occurred in recent years or remain real threats – that also revealed gaps in data. They noted: emerging country financial crises, global imbalances, financial deregulation and the increase in unregulated financial intermediaries, increased activity in international mergers and acquisitions, foreign exchange reserve build-up, serious arrival of derivatives and exotic financial instruments, asset bubbles and the expansion of trade in services.

And they set out a range of problems and measurement issues, in both theory and practice: transparency of data, availability of accurate data (missing, non-existent sources, time lags in getting new data and errors), gaps in savings/investment data (both stocks and flows), complexity of flows, variety of sources of funds (they are harder to track if they come via a string of off-shore centres), ownership (who are the custodians, intermediaries and ultimate counterparts), measuring credit risk, money laundering, accurate pricing (mark to market, fluctuating rates, liquidity) and the need to report on unregulated activities or bring within the scope of regulation (such as hedge funds). Progress has been made in some areas but not enough.

And what about the future of the nation state and the value of data relating to it – has the nation as a unit been undermined by globalisation? The EU has hastened that process in Europe. One problem we have at the FT is classifying multinationals to the right country for the purposes of stock market index calculation. The task is not getting any easier as companies increasingly see themselves as not being of any one nationality. So far as normal economic data is concerned, do we need "global" data, comparable "national" data or perhaps regional data (with countries grouped) where that makes more sense than focusing on one country?

I would add other areas where data quality and quantity need to be boosted. What about the "hidden economy" data, e-commerce, spread betting and internet gambling? What about off-balance-sheet activities and the public/private sector split? How much international trade is intrafirm, what is the role of strategic alliances, and do we know enough about the relocation of business activities and outsourcing? On a very practical level, what about second homes – they are no longer just for the super rich (or central bankers!): the English have perhaps half a million second homes in the UK and at least another quarter million over Europe – and how are the mortgages and consequent wealth counted?

We are worried about corporate risk but how do we reduce it – or at least give ourselves more advance warning of problems? We need data on market discipline, internal checks (non-executive directors, auditing, etc.), listing exchange requirements, official regulation (business structures, reporting requirements), transparency (accounting standards), and values (honest dealing).

Data are also required to inform the debate about the merits of globalisation. The process, however defined, is not universally welcomed. We need more information on division of inequality and poverty, the role of multinationals, financial liberalisation, and the extent to which dearly held aspects of our society are apparently threatened (welfare state, environmentally-friendly policies and democracy). What about child labour exploitation in the developing world, the dissemination of corporate brands and the appropriateness of economic strategies of the developing world (if they are just selling agricultural products)?

Even "old" data such as trade figures – one of the key variables measuring globalisation – often contain black holes of unexplained discrepancies. There is also a limited willingness on the part of data producers to work together to minimise these gaps. The creation of harmonised CPI data in the run up to EMU was a tortuous process and that was despite the immense urgency and political need that is unlikely to be repeated for any other series.

The task is a large one but there is good news. Everyone – whether you believe in the benefits of globalisation, just think it inevitable or indeed are suspicious of the trends and process – should unite to press for decent figures. We all need them to support our case!

50 BRISCOE

But who and how? This is a topic for later in the conference but the speakers also set out some thoughts about the future – about who might collect the data and under what rules. Some organisations are under strain – Eurostat has no credibility. Others are better placed – the OECD's Handbook on Economic Globalisation Indicators is a valuable contribution. Perhaps central banks are the ones with the expertise, resources and credibility to collect the data?

The bottom line is:

- We need better data as cross-border transactions become more important
- Nation states, primarily through their national statistical offices, need to consider these issues more actively and increase cooperation with their peers.
 Countries must provide the national infrastructure, such as a stable currency, law and order, health provision and also statistics. National statistical institutes and international bodies for that matter ought to wise up pretty quick as globalisation is not new human groupings have always interacted through trade, marriage, war, and the transmission of ideas. It might be more intense and faster but it is not new. Old problems need to be resolved now.
- The private sector we should remember that globalisation is a process driven by companies and active, self-directing individuals - not governments or people who collect data. These agents, especially multinationals, need information on which to base their judgements and they should be encouraged to contribute to its collection.
- Those operating in financial markets exchanges, ratings agencies, banks and other players should all be encouraged cajoled to cooperate with data collection. Financial markets mobilise savings, transform risk (pooling and distribution), monitor corporate managers, and allocate capital (loans and investment financing). But the markets can go wrong due to poor information they are fragile (short-term liabilities and long-term assets), and have certain risky behaviour patterns (volatility, herd behaviour and so on).
- International bodies need to be more flexible and pursue harmonisation more efficiently.

The good news is that I am sure we are still at the early stages of globalisation. Many things are multinational but not many are global. Assuming the process of globalisation and greater economic integration is ongoing, there is time to get the data if we start now. But who is going to pay, can imaginative ways of getting the data be found and will the statisticians rise to the challenge of cooperation? I hope we will be a little wiser by the end of tomorrow.

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DISCUSSION SUMMARY

In his introduction to the discussion, **Erkki Liikanen** (Governor of Suomen Pankki – Finlands Bank) suggested that there were three issues for the Governors of the national central banks to consider with regard to financial statistics in the global economy. The first issue was whether to use soft or hard data. Soft data were timely and could be used to fill the gap before the more expensive, but also more reliable and methodologically sound hard data became available. Second, Governors had to consider how to deal with the global imbalances in the data. For example, what were the real debt figures? He also noted the discussions on the figures to be used for the net debtor position of the United States. If there was disagreement on the accuracy of the key indicators, what chance was there for agreeing on the disaggregated statistics? Finally, the third issue was how to cover the activities of multinationals in national statistics and how to measure the movement of capital and services across international borders. How much margin of error did we need to account for?

Charles P. Thomas (Chief International Financial Transactions Section, US Federal Reserve Board of Governors) pointed out the difficulties of collecting information on the ultimate holders of securities. For example, intermediaries in offshore financial centres invested on behalf of residents in other countries. In his view, the data from the IMF Coordinated Portfolio Investment Survey (CPIS) suffered from the same drawback as the data from the US Treasury International Capital (TIC) System, which was the absence of "third party holdings", i.e. securities held through foreign custodians. In response, Nouriel Roubini (New York University) agreed that it was a complex issue identifying the ultimate creditors. In the examples presented, such as the case in the Cayman Islands, there was definitely the issue of transparency which made identifying the third party very difficult. With regard to the CPIS and the TIC, in particular, he underlined that there was a data problem.

In his response, Marc-Olivier Strauss-Kahn (Director General of Economics and International Relations, Banque de France) agreed that the CPIS revealed gaps that needed to be filled. He suggested that both producers and users of statistics needed to well understand the behaviour and motivations of economic actors before drawing any conclusions on the mechanics of certain complex transactions in the global market. On the issue of the use of soft data, he noted that hard data, based upon the system of national accounts, were often revised, while soft data were not revised as frequently. Nevertheless, there was still an important distinction to be made between consumer confidence survey data and statistical accounting source data in terms of quality, coverage and fit for analytical purposes.

Jean Cordier (Director of Balance of Payments, Banque de France) noted that additional information on prices of financial assets would be useful as globalisation implies longer/deeper maturities. Further, Cordier said that the data on securities stocks contained better quality information than data on flows. He questioned whether data on financial flows should be collected at all. **Nouriel**

Roubini said that flows helped the understanding of changes in stocks, together with changes due to prices and exchange rates.

Gyorgy Sándor (Magyar Nemzeti Bank) explained the difficulty of including data from companies located in the Hungarian offshore centre in the national b.o.p. and i.i.p. statistics. He felt that such data were not representative of the Hungarian economy. Therefore, the Magyar Nemzeti Bank produced two datasets, a b.o.p. set in accordance with international standards, including offshore data, and another b.o.p. set for policy purposes, i.e. excluding companies located in offshore centres.

Martti Lehtonen (former Director Statistics at Suomen Pankki – Finlands Bank) pointed out that most of the participants in the conference came from Europe and the United States. It would have been interesting to have a wider participation from China and India, as the problems of globalisation cannot be solved solely in Europe and the United States.

In his response, Strauss-Kahn agreed that emerging markets also had a role to play in improving statistics. Trade and foreign direct investment data changed when offshoring occured, as illustrated by the heavily revised figures that were recently published by China; this can have a wider impact on the compilation of financial statistics. With regard to identifying the user priorities for improvements in statistics, he considered that for Europe, more appropriate balance sheet data for the corporate sector and households had the highest priority. Compared with the United States, there was still a lack of good statistical information on the debt, profit and income positions of these sectors. In addition, attention needed to be given to hedge funds, so as to better understand their operations in the absence of source data based upon regulatory and supervisory monitoring. Finally, there was a need to consider making data more accessible to researchers and the general public, while complying with the confidentiality and anonymity requirements. Anonymity was protected by compiling aggregates, but this form of data did often not provide the necessary detail for the users. The question was, therefore, how to reconcile these considerations.

Steven Keuning (Director General Statistics, ECB and Chairman of the ESCB's Statistics Committee) talked about the current development of financial and non-financial accounts for the euro area. That statistic would consist of a fully integrated and consistent data set, eliminating most of the data asymmetries and statistical discrepancies including the errors and omissions which had been described in the other presentations of this session. He suggested that in general assistance from academics would be helpful, so as to identify and solve the global imbalances, both for stocks and flows. Tackling the imbalances would require a joint effort by the major world players, which could include academic users.

As a form of conclusion with regard to the priorities for the future, **Roubini** referred to data supporting risk management, such as financial assets by residual maturity and ultimate holders of securities. More comprehensive, official

54 DISCUSSION SUMMARY

statistics were required for regulatory purposes, but also more information from the private sector was needed, in order to achieve better risk management, together with better assets and liabilities data, which could be compared across countries. **Strauss-Kahn** reasserted the need for euro area data regarding for example the measurement of savings by households and non-financial companies. There was clearly a need for further standardisation and harmonisation of financial statistics but this did not reduce, and rather enhance the relevance and usefulness of national collection of statistics.



2 CHALLENGES FOR NATIONAL DATA COLLECTION IN A GLOBAL WORLD

"WHY GLOBALISATION WORKS, IN STATISTICS TOO"

HENK J. BROUWER

I INTRODUCTION

Ladies and gentlemen,

At this very moment, I could have been in Malta, because some time ago I was invited by the governor of the Central Bank of Malta to give a speech on monetary policy. When I apologised for not being able to accept his invitation, his reaction was that a conference on statistics would no doubt be highly relevant, but also possibly extremely boring. I can assure you that I confirmed his first observation but strongly rejected the second! Indeed, this is an exceptional meeting. After all, how often are users of statistics – and policy-makers in particular – given the opportunity to exchange views on the world *according to* statistics and the world *of* statistics before an audience of statistics experts of this size. Incidentally, at De Nederlandsche Bank, I am responsible not just for divisions which *make use* of data on globalisation, but also for the Statistics and Information division, where such data are *compiled*. This allows me to look at today's subject from both perspectives. While doing so, I might be a little bit provocative and controversial now and then. So, some people might think, why didn't he go to Malta in the first place!

The leitmotiv of my speech is the question of how the world of statistics could be served by change. This question on the need for change has always been a highly relevant one, be it in policy-making, science, engineering or art, and it is no less topical in the world of statistics. Questions which we could ask ourselves more often are: "Can we manage with less?", "Where do we need more?" and "What do we really need?" Another related question is: "How can we improve the statistical process?" Here, too, we stand to gain from globalisation, for the simple reason that it invites us to embrace new ideas. That is why I have taken the liberty of borrowing my title from a book published in 2004 by Martin Wolf, a well-known Financial Times columnist, "Why globalization works", to which I have added: "in statistics too".

2 GLOBALISATION: THE WORLD ACCORDING TO STATISTICS

Let me begin by taking a look at globalisation. Over the years, statisticians have faced the challenge of keeping up with a world that is growing into a global village. For example, statisticians faced challenges in all areas of the balance of payments. Global capital liberalisation led to strongly increased cross-

border securities transactions. Also, multinational corporations became ever more interrelated internationally, a development reflected not only by intracompany trade but also by direct investment flows and positions. Unfortunately, in several countries, figures are increasingly inflated and dominated by the mere passing through of capital via Special Purpose Entities. Users don't like this distortion of the figures of course, for if there is one statistic, apart from foreign trade, used to analyse globalisation, it is that on direct investment. It is this very statistic which has become susceptible to vast distortions. It is therefore gratifying that a Workshop on Supplementary FDI Statistics was recently held at the ECB on how to compile more useful and less inflated statistics on direct investment. This is just one example of globalisation and the challenges it implies for statisticians who want to continue to meet user needs.

3 GLOBALISATION: CONSEQUENCES FOR THE WORLD OF STATISTICS

Statistics producers are continuously trying to keep up with globalisation. In this respect, one of the most welcome innovations in Europe has been the setting-up of a system of quarterly sector accounts, including MUFAs, or Monetary Union Financial Accounts. They provide for a more or less complete framework for monetary analysis. More generally, the compilation of all sorts of new aggregates for the euro area has also given a major impetus to harmonisation, just as the convergence criteria for accession to EMU and the excessive deficit procedure did earlier. This is in itself a welcome development.

But can we say the same of the steady increase in all sorts of additional demands for specific data? Take, for instance, the frequency of different statistics. In the start-up stage of EMU, only a few key national balance of payments items needed to be reported to the ECB. But that has changed. Today's monthly statistics are nearly as detailed as the *quarterly* ones. This is remarkable, since the sector accounts were set up on a quarterly basis precisely because these were supposed to cover the essentials needed for policy preparation and analysis. In the United States and the United Kingdom, a full balance of payments is compiled only once every quarter, on the basis of quarterly surveys. Europe's Eurostat also confines itself to quarterly figures. I feel, therefore, that a quarterly balance of payments statistic should be sufficient, perhaps supplemented with a few monthly indicators, for example, on the trade balance, the banking system's external position and official reserves. As monetary policy is directed at the medium term, and short-termism should be avoided, it would be appropriate to assess from time to time the frequency of all statistics, including the statistics currently being developed on Other Financial Intermediaries.

Another question we should ask ourselves regularly is: Are all current statistics really necessary? What about the new interest rate statistics, for instance, with their large numbers of interest rates? Shouldn't the need for all these rates, also in view of their increased interdependence, be evaluated from time to time? The same question applies to some national statistics, such as those on money

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supply, which have become irrelevant for monetary policy decisions at European level. These – admittedly critical – observations are relevant not only to monetary statistics but to all sorts of other statistics as well. It is possible that the examples I mentioned make you think of other similar examples at the European level, or in your own country.

A third question to be addressed should be whether the degree of detail is still appropriate. The best-known statistic which comprises many thousands of details is that on foreign trade. Here, efficiency would certainly be enhanced by less detail. To the extent micro-trade statistics are used in Brussels in order to monitor compliance with anti-protectionist provisions that would be a further reason to join Martin Wolf in hoping for a new wave of globalisation, which makes many of these details superfluous.

If I may make a comparison with the painter Rembrandt: his paintings are all about lighting and focus on what is important. In his most famous painting, the Night Watch, our attention is drawn almost automatically to what he wishes us to see through a clever contrast of light and dark. Looking at his paintings, you hardly realise that large, dark parts of them barely contain any detail. This is how statistics should work, with the focus and the choice of detail clearly telling us what is and what isn't important. Those demanding more and more detail may feel a need to have a better grasp of things, but I fear sometimes they will only get quasi-certainty.

I am not saying that we don't need new statistics. On the contrary, the world is continuously changing, and I already mentioned the adjustment of existing statistics on foreign direct investment to meet user needs. New statistics, at the national level too, may also be crucial to monitoring financial stability, a task which has gained increasing importance within the ESCB. Nouriel Roubini, for instance, has listed a lot of demands for new data. After all, financial stability depends in part on national factors into which national policy-makers may also wish to have insight. Take the housing market, for instance, where mortgage lending depends not just on interest rates, but on other, national institutional factors as well. And it is because we do need new statistics in order to be able to analyse new developments in a changing world, that we should feel an obligation to be critical about the existing ones. This idea could be applied in medium-term programmes, containing proposals for the adoption of new statistics and the abolition of existing ones.

4 STREAMLINING THE STATISTICAL PROCESS

In this respect, it would be useful to look continuously for opportunities to streamline the statistical processes themselves. In 2003, De Nederlandsche Bank considerably reduced the reporting burden for the business sector, an achievement totalling tens of millions of euro, thanks to the introduction of a new direct reporting system for the balance of payments. Similar gains can and are realised in other countries. I understand that according to national action plans, around ten Member States will have a direct reporting system by 2007.

The more countries work with such systems, the more fertile the soil becomes for initiatives aimed at further harmonisation, such as the unified reporting system for multinational companies. That idea has now been put on ice because not all multinationals are interested yet. But they may become so as collection systems change within Europe.

At De Nederlandsche Bank, we are currently examining the areas in which we could make more use of statistical sampling techniques and at the same time improve on our grossing-up methods. Similar projects may be underway in other countries. It would be fruitful to exchange views on how to strike a proper balance between quality, publication frequency and timeliness, and the reporting burden. This isn't always easy. How far should we go? And where will indicators instead of fully fledged figures do the job? Perhaps we can learn from countries which have already taken this route, or which have many years of experience of such methods. De Nederlandsche Bank will host a seminar on this subject on 30 November.

Greater cooperation is always conducive to a lighter reporting burden. Take, for example, cooperation between central banks and national statistical institutes, between the ECB and Eurostat, between central banks and banking supervisors, and, last but not least, between NCBs and the ECB. As already mentioned by José Manuel González-Páramo, a good example of the latter is the Centralised Securities Database that should facilitate the reporting of securities transactions on a security-by-security basis. Another example is the cooperation in my country between the central bank and the statistical institute. We have organised things so as to avoid any double reporting of data to both institutions. Data are exchanged between them, but are subject to confidentiality. This has been formally laid down in cooperation agreements. Similarly, an improved exchange of information between the ECB and Eurostat could prevent national authorities from having to submit similar data both to the ECB and to Eurostat. Also, within De Nederlandsche Bank, which exercises supervision on banks, pension funds and insurance companies, data is collected as far as possible by way of integral reports. I know that sometimes legal impediments still stand in the way of such an exchange of information in various countries. However, I believe that in good cooperation between central banks and supervisors, practical solutions can be found to exchange information without endangering confidentiality. In such a way the reporting burden can be kept as low as possible.

A final way of cooperating that I want to mention concerns the issue of European samples. I know that this is a sensitive subject. But wouldn't we stand to gain much more from organising joint samples in those cases where only the European figures are relevant – and not the national components? Earlier I mentioned the monetary aggregates including the pending statistics on Other Financial Intermediaries. National components in those cases no longer serve real policy and analytical purposes. So a joint euro area-wide sample could be more efficient. I hope that you at least share my view that we should think about such alternatives more often, without entertaining previously conceived ideas about the outcome. Somewhere in his book, Martin Wolf sees the main

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challenge to globalisation as the contrast between "the natural tendency of markets to cross borders" and "states that *define* those borders". Perhaps this goes for the world of statistics too, or let us say, "the Europe of statistics": it seems to me there are still quite a few internal boundaries to cross between national statistical territories.

5 CONCLUSION

Let me conclude. I started with globalisation, queried our statistical needs and ended with the question of how we can reduce the reporting burden. The key issue is, in fact, how to find the right balance within a triangle of forces, consisting of first, user needs, second, compilers' ambitions, and third, the reporting burden. Balance and focus is what it is all about. So let us give up our wish for a balance of payments on a monthly basis. Let us simplify trade statistics made up of thousands of different goods. Instead, let us place greater reliance on indicators and samples at the European level. Let us exchange more information and intensify our cooperation. Let us adopt, in medium-term work programmes, the principle of dropping a statistic before introducing a new one. In my view, that's the way we should create room for new statistics, statistics that we really need, tailored to a world that changes continuously.

"THE NEED FOR REASSESSMENT AND HARMONISATION OF REPORTING REQUIREMENTS"

HEIN G. M. BLOCKS

I INTRODUCTORY REMARKS

All my professional life I have enjoyed working with figures and statistics. For me this is not a dull topic. But today I have to speak about figures without using them, and that really is something quite different. I will also use this opportunity to mention some "cris du coeur" related to the changing environment of the banking industry.

This third ECB Conference on Statistics has chosen the interesting topic of "Financial statistics for a global economy".

It is indeed interesting and informative to consider whether the existing statistics offer sufficient information to assess globalisation, and to consider the new statistical needs and the impact that globalisation has had and will continue to have on statistics.

It goes without saying that sound statistics are a robust basis for good policy decisions, from which we will all benefit. Of course, for reliable statistics, correct, complete and consistent figures are of crucial importance. Good policies can never be built on weak foundations!

Knowing that globalisation not only affects central banks, but also other supervisory bodies on the national, European Union (EU) and international levels, it is a pity that this particular conference is not jointly organised with supervisors.

For instance, looking at the mandates of the individual central banks within the European System of Central Banks, we may conclude that they are quite different from each other. These different mandates place dissimilar demands on banks in different member countries to produce different sets of statistics with differing definitions and languages.

To make the reporting burden of banks even more difficult and costly, they also have to comply with reporting obligations to other supervisory authorities. Pan-European bank-insurers are confronted with more than 60 supervisors in the EU.

With globalisation, I am happy to see that the world is becoming flatter and flatter and the playing field more and more level, but reporting requirements seem to ignore the emergence of the new knowledge economy. And that is definitely not what we want to see happening.

2 GLOBALISATION AND BANKS

Before turning to the issue of globalisation and banks, I would like to say that the phenomenon of globalisation is not new, except as regards one of its aspects.

This exception is the cross-border tradability of services (with the exclusion of personal services), which is facilitated by maturing information technologies at falling prices. This is an important basis for the construction of the knowledge economy. In this new economy, labour will become a product in itself or, in other words, your work as, for instance, a researcher or entrepreneur, will become your product. So input is becoming synonymous with output.

Figures which give the impression of being precise are in some cases less accurate than words. We really need different figures for different purposes in different environments.

This is perhaps the biggest challenge we will face in the statistical field. Current statistics are still based on measuring a post-industrial society where, for instance, labour is only instrumental in the production of physical capital goods.

For example, private sector expenditure on research and development (R&D) is accounted for as labour costs and consumption, while government expenditure on R&D is recorded as product-tied subsidies.

2.1 How globalisation affects banks

Globalisation is affecting banks in three ways.

First, directly via the **flow of goods, financial capital, people** and information, the consolidation of corporations and markets, outsourcing and relocation of activities.

Second, indirectly through the **increasing reporting demands** of supervisory and monetary authorities on the national, European and international levels. These reporting requirements are showing signs of overshooting caused, among other reasons, by the accounting scandals the world has experienced over the past few years.

Third, as a consequence, banks have to adapt their **business models** in order to cope with the changing economic, societal and political environment.

A changing world will also see a changing banking landscape.

I would like to elaborate on some of the different aspects:

World trade, as measured by imports and exports, has risen much faster than
world income and production. Trade is also increasing between an evergrowing number of countries, some of which are new players in the
international arena. These countries have important factors in common: they

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produce ever-improving goods and services at relatively low prices, but they are uncharted territories, giving rise to new risks. The bigger new players are, the bigger is the risk.

Therefore, there is an increasing need to assess the stability of financial sectors in both developed and emerging market economies, if we are to avoid financial crises or to deal with them effectively. A good initiative is the Financial Sector Assessment Process (FSAP). This process, if well conducted, will be beneficial to the stability of the world financial system.

The FSAP is an important step forward but does not suffice in itself. We have to speed up the construction of agreements on safety nets, such as deposit insurance schemes and lender-of-last-resort arrangements, between prudential supervisors.

The ongoing massive shift of world trade flows and consequently of payments flows to and from China and India has increased the need for the big international banks to be located in these countries too, not only to serve their own clients better and more efficiently, but also to secure a foothold in future growth markets.

There are, nonetheless, clear distinctions between the strategies of European banks. Banks that have not yet earned their ticket to becoming a global player are looking for regional strategies, like securing their positions in the euro area or in central and eastern Europe.

And even real local players, like many savings banks, are combining forces to cover larger territories, even across borders.

By expanding into new countries, banks are contributing to the greater interconnectivity of the different economies and their financial markets, and therefore to the efficient allocation of financial capital.

— Global capital flows have increased massively thanks to the liberalisation of capital markets. Furthermore, capital flows are no longer the natural counterpart of trade flows, but are originated by financial market participants seeking continuously increasing financial returns at acceptable risks. This is "hot money", which we sometimes seem to forget.

A new phenomenon is the mounting foreign exchange reserves of emerging market countries (EMCs) – even those that are not oil exporters – and their willingness to lend to developed economies. These EMCs are building up their foreign exchange reserves as a safeguard against any future balance of payments crisis. Having experienced the painful and destabilising effects of being cut off from recourse to financial markets, they have chosen to build up huge foreign exchange reserves in order to avoid a repetition of those developments.

These reserves have been invested, for the most part, in US dollar assets. This has led to a massive capital inflow into the United States, which has

contributed to relatively low long-term interest rates and made it easy to finance the US balance of payments deficit, despite its huge and ever-increasing size. The dollar has happily accepted this strong support.

As a consequence, it looks as if the US balance of payments deficit is sustainable and is not threatening world financial stability. That is not entirely true.

The US balance of payments deficit is mainly financed by short-term and, by its nature, volatile, capital. This capital will flow out of the country should investors and EMC central banks have their doubts about the strength of the dollar. Trust in the future exchange rate of the dollar is heavily dependent on the inflation outlook for the United States. If the credibility of the US Fed wanes, investors will vote with their feet, by leaving the United States and reallocating their investments to other currencies such as the euro.

Lenders and the "Big Borrower" have actually imprisoned each other through debt, which will make things worse for the world economy as a whole if trust wanes.

Against this background, the growing politicisation of the dollar is worrying. I will just mention the case of a Dubai-based company and US ports as an example.

 The increasing interconnectivity of economies and financial markets, in real and digital terms, is continuously driving corporations to improve their competitive positions by lowering costs and entering new growth markets.
 There is no choice for banks other than to follow their clients.

But, more importantly, the battle for the retail client has entered its final phase. The quest for distribution channels has resulted in a number of mergers between banks and insurance companies and between banks and investment funds.

Furthermore, robust information and communication technologies at declining prices have facilitated the digital entry of banks to far distant foreign retail markets. Growing digital market places and internet societies have created a great need for digital banking services, electronic money and fast, secure and cheap international payments services.

The implementation of the Single Euro Payments Area (SEPA) will, in my view, give a boost to digital banking, by overcoming the barriers (e.g. running and switching costs) that limit customers to the electronic services of banks in their countries of citizenship. There is no economic reason why banks should not offer their digital retail products from their country of location to customers in far distant countries. It is the inverse of current strategies, whereby the retail bank goes to the geographical market of its customers. SEPA is a cornerstone for the construction of a really integrated market. Currently it would be ill-advised to announce or discuss the enforcement of the phasing-out of national domestic products after 2008. The interests of

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bigger, cross-border players and of the many smaller banks operating nationally are clearly different. Yet they have agreed together to have SEPA up and running by 2008. Authorities should welcome these initiatives and only interfere if markets fail to effectively phase out domestic products after 2008.

SEPA offers European banks the opportunity to adopt new retail strategies that will definitely reward them with a competitive edge vis-à-vis non-European banks.

For example, after 2008 banks may decide to use foreign processing systems and clearing houses for their domestic transactions if they are more efficient, by replacing their national payment instruments with the European alternatives.

However, the current set of rules, especially the duties of care imposed on banks (e.g. "know your client" and customer due diligence), seem to be impregnable barriers for this development. This could deprive the European economy of an important source of innovation, creativity and productivity.

 I strongly recommend reassessing the rules and regulations to determine whether they are barriers to entry to this new economy.

As is the case in many sectors, within the banking industry there is much discussion about a rule based and a principle (or risk-) based approach. The number of rules and regulations is still growing. In some areas a promising start has been made on replacing the rule-based approach with a risk-based one, e.g. in the area of unusual transaction reporting and the internal modelling approach under Basel II. However, we also notice the emergence of lists of "guidance", from regulators as well as internal instructions, especially in bigger banks. This creates the worst of two worlds. Banking regulators and the industry should together find a way to strike the right balance between a rule and a risk-based approach.

3 THE NEED FOR REASSESSMENT AND HARMONISATION OF REPORTING REQUIREMENTS OF BANKS

Globalisation is a complex phenomenon bringing new opportunities and risks. Statistics should not be static but dynamic.

The main statistical challenge is to construct statistics that enable us to assess the coming on stream of the knowledge economy, which is not possible with today's post-industrial statistical methods.

The changing paradigm of labour as a product will need new statistical methods, for instance, to measure productivity. The importance of a sound measurement of productivity is that it will give new insights into how to measure inflation, a key issue for monetary policy decisions.

On the reporting requirements for banks, I can conclude that the current sets of rules and regulations of national supervisors differ in terms of reporting requirements, definitions and languages, causing onerous costs for reporting entities. We welcome efforts towards harmonisation in reporting, like the common reporting framework (COREP), the financial reporting framework (FINREP) and XBRL, the eXtensible Business Reporting Language.

A more problematic situation is created by the different reporting standards and interpretations under the international financial reporting standards (IFRS) and the international accounting standards (IAS). It sometimes looks as if their main advantage is only creating common standards and comparability. But this certainly does not imply that these standards result in a better reflection of the real risks in all individual situations. It is also in this area that we should seek risk-based exceptions to the rule-based approach.

Having said all this, I would like to make the following seven recommendations:

1. First, I recommend converging and harmonising the reporting requirements of the ECB with those of the IFRS and Basel II.

Supervisory reporting cannot be analysed in isolation. It should be integrated within the context of other reporting forms such as IFRS and Basel II. There should be fruitful coordination with other standard-setters, aiming, among other things, at harmonisation and/or integration of the reporting requirements of prudential and monetary supervisors.

2. Second, differences in reporting requirements between countries lead to inefficiencies in reporting and to sizeable costs.

The different entities within one financial group may report to different authorities, who apply different criteria, different definitions, different levels of detail and frequency and different technical formats. The lack of transparent information on reporting requirements in the different countries and the different languages in which requirements and forms are formulated are sources of inefficiency.

If the principle of a "lead supervisor" were to be strengthened and formalised, this would deal effectively with the diverging reporting requirements, especially for financial groups with a presence in different foreign locations, and it would give supervisors better information for a group-wide risk assessment.

Common reporting requirements can even not be restricted to the lowest common multiple. For large cross-border institutions this expansion (compared with any national requirement) would already mean a major improvement, but clearly not for the thousands of smaller banks operating only nationally.

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3. Third, I recommend an approach whereby the data available in the internal management systems of banks are taken as the basis for the reporting formats of supervisors and of the ECB. Or, at least, that these reporting formats be designed to also fulfil the requirements of internal management systems.

The Basel II internal risk-based systems approach creates a great opportunity to arrive at a system whereby one supervisory body grants EU-wide recognition to an internally used risk-based model.

4. Fourth, there is a growing need to have timely risk assessments of the stability of financial sectors in both emerging markets and developed markets. The FSAP is welcome, but more needs to be done.

We have to come to agreements on safety nets, such as deposit insurance schemes and lender-of-last-resort arrangements, between prudential supervisors.

The absence of these agreements is wrongly used as an excuse to retain national differences and (differing) areas of national autonomy.

- 5. Fifth, I strongly recommend reassessing the rules and regulations to determine whether they are barriers to entry to the new world of SEPA. Rules and regulations should facilitate market-driven integration, they should not force it in another direction. They should only be considered for speeding up the process, not for directing or for hindering it.
- 6. Sixth, an electronic web-based system for delivering reports will slash costs while offering banks better accessibility and more transparent data. Therefore, banks welcome "E-Line".
- 7. Seventh, we should follow the rule of first reviewing and judging the existing reporting sets before introducing new reporting requirements.

Rebuilding the system does not mean taking the existing body of data for granted. In theory we should start by defining which information is really needed and from there we should build a common set of definitions. In practice we have to accept the pragmatic solution of seeking convergence, then combining these requirements and finally starting to reduce the data to be reported.

4 CLOSING REMARKS

Let us conclude. Globalisation is changing paradigms and, as a result, the economic function of statistics. Sound statistics are a robust basis for good policy decisions and this will support prosperous economic developments. This was my "leitmotiv" for my analysis and recommendations.

However, one should not form the impression that banks are against reporting requirements, statistics and supervision. That is certainly not the case. On the contrary. Good information systems need good data to provide the basis for good policy decisions. Together we should build a new world of statistics that serves the internal policy-makers of the banks as well as the prudential and monetary supervisors. Strong monetary and prudential policies based on reliable statistics are of crucial importance.

Banks and supervisors/central banks have many interests in common which should be the basis for future-proof reporting systems.

Thank you for your attention

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COMMENTS

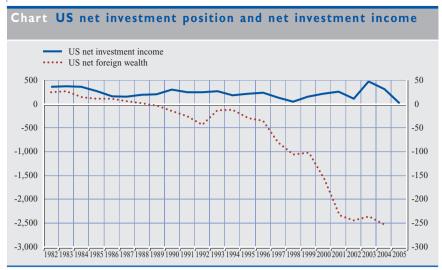
LUCREZIA REICHLIN

I found both papers stimulating and thought-provoking. They tackle similar issues, making the important point that globalisation has had a number of consequences for the collection of statistical data. Most importantly, data collection has become increasingly complicated. For example, as the discussion of the banking sector in the paper by Hein G. Blocks illustrates, globalisation has led to a more risky environment for banks to operate in. This in turn has increased the need for monitoring and up-to-date statistical data, which allows for a more timely risk assessment. Another example, brought up in the paper by Henk Brouwer, concerns data on foreign direct investment (FDI). Due to international capital flows that represent a mere pass-through of capital through special-purpose entities, these data have become susceptible to vast distortions. Globalisation also increases the need for a continuous revision of statistical requirements. According to Brouwer, this should encompass not only the addition of new statistics but also the discontinuation of data that is not needed any more.

Both papers argue that significant efficiency improvements and cost-cutting in the collection of statistics can and should be achieved. This is particularly important in light of the increasing demands that globalisation puts on statistics. The necessary improvements could be achieved by taking full advantage of the opportunities offered by new information technologies, a key driving force behind globalisation, and by coping with the growing interdependencies in the global economy through efforts towards a greater harmonisation of statistical concepts and methods. In turn, the latter requires increasing cooperation among national statistical bodies and the private sector.

The following example, motivated by a research and policy perspective, can be helpful in clarifying the issues at stake. Globalisation involves large and growing trade and financial flows, whose most apparent manifestation is perhaps in the unprecedented size and persistence of current account deficits in the United States. Over the past 15 years, the US current account has shifted from being in balance to recording a deficit of over 6% of GDP. Over the same period, the United States has moved from being a small net debtor to the rest of the world to one with net liabilities at the end of 2005 of over USD 2.5 trillion (see Chart 1).

Researchers and policy-makers have debated whether these imbalances, mechanically reflecting low US net savings relative to the rest of the world, stem from productivity growth differentials, excessive savings outside the United States or insufficient US public and private savings. Furthermore, the role of exchange rate policies pursued by Asian countries has also been taken into consideration. Against this backdrop, concerns about the sustainability of the current macroeconomic imbalances at the global level have dominated international policy discussions. However, some observers have gone as far as to dispute also the very notion of the United States being a debtor nation. How is this possible? The chart above displays US net investment income from 1982.



Source: Bureau of Economic Analysis.

Despite the continuous deterioration in the net investment position (NIP), net investment income has been both stable and positive. This means that the rate of return on US liabilities is significantly smaller than the return on its assets.

This apparent puzzle has been addressed by several researchers. Positive net investment income can be the result of a rate of return differential on each asset class or of a composition effect (e.g. because the United States holds equity but issues debt). Echoing the transatlantic debate of the 1960s, Gourinchas and Rey (2005) argue that the United States enjoys an "exorbitant privilege." By decomposing the two sources of variation they conclude squarely that returns on US assets abroad systematically exceed returns on US liabilities, even for the same class of investment. This is explained mainly by a return effect on each asset class and not by a composition effect. While this feature could ease concerns about the sustainability of US NIP, an adjustment involving some kind of reversal in the current account will have eventually to occur.

Authors such as Hausmann and Sturzenegger (2005) have argued, however, that the persistent US surplus on investment income, despite the supposed move into a net liability position, shows that the United States is actually a creditor country. They claim that there is no current account deficit, because the United States is exporting "dark matter," in the form of large and unrecorded sales to the rest of the world of a variety of liquidity and insurance services, and of intangibles such as know-how embedded in US direct investment abroad (USDIA).

The policy implications of these two views could not differ more radically. While according to the first, global imbalances are bound to become a concern for policy-makers if they persist unchecked, in the second view the problem is the data. As US foreign wealth is badly mismeasured, there are no global imbalances to be concerned about.

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Clearly, the key question is whether the "dark matter" view is empirically grounded. The answer to this question crucially rests on the following two statistical issues:

- The measurement of investment income, from both interest payments and FDI; and
- The (re)valuation of FDI investment recorded at historical, book values.

Starting with the measurement of investment income, it is important to recall that according to the statistical conventions of the balance of payments, interest payments are recorded on an accrual, not on a cash basis. As pointed out by Buiter (2006), this has two important consequences regarding the treatment of the stream of payments from non-performing debts. First, before a write-off, non-performing debt continues to accrue (fictitious) interest which is registered as actual income. Second, after the write-off, the unpaid principal and interest arrears are moved to a different section of the balance of payments, the capital account, rather than debited to the investment income account. Consequently, income from risky US foreign assets, especially in emerging economies, may be grossly overstated due to this selection bias problem.

Moreover, tax arbitrage can also distort another important item of investment income, namely reported returns on USDIA and FDI in the United States. Multinational firms can use transfer prices for sales and financial transactions across subsidiaries to redistribute accounting profits to the location where they are least heavily taxed, thus overstating or understating overseas revenues accordingly. While affecting the recorded investment income, this practice would simply shift items from the income to the goods and capital accounts in the balance of payments, thus leaving the overall size of the current account unchanged. As a result, the latter is likely to be a more reliable measure of a country's external imbalances.

Another set of issues is raised by the way the FDI stock at historical values is revalued according to market values. According to US practice, this revaluation is carried out using the market to book value ratios of firms listed in the stock market of a particular country. USDIA at market value in a given foreign country (Ireland, say) is calculated by multiplying USDIA at historic cost (book value) in Ireland by the ratio of market value to book value of portfolio equity in Ireland.

The problem is that these revaluation coefficients are likely to be poor multipliers to apply to the FDI stock, as the equity obtained through FDI is generally not traded and often involves shares of companies that are not even listed. Consider first the return on FDI in the United States – whose stock market is arguably the most liquid and efficient in the world. The use of this practice is likely to underestimate the market value of FDI, as the price of listed firms will not reflect many intangibles, such as control rights and know-how, which are usually embedded in FDI. By the same token, the sign of the error when the same methodology is applied to USDIA is unclear. While investment in other

industrialised countries with well-functioning financial markets can be expected to be likewise underestimated, this practice is likely to lead to overestimation of investment in emerging economies. As pointed out by Buiter (2006), listed companies in emerging markets are not randomly selected with respect to the factors that make for higher returns. Their rate of return tends to be higher than that of FDI and of private equity vehicles – the exact opposite of what happens in well-functioning market economies.

The bottom line of this brief discussion is that an alternative, admittedly less exciting, explanation of the puzzle is the poor quality of statistics on investment income flows and the market value of investment stocks. We do not know how much "dark matter" there is in the US external accounts. But what we know for sure is that the only way to solve the puzzle is to improve the quality of data.

Globalisation poses a formidable challenge for the timely collection and dissemination of dependable statistical data. There are already several commendable instances of initiatives devoted to the development of new statistics, such as the Coordinated Portfolio Investment Survey (CPIS) launched by the International Monetary Fund (IMF) and strongly supported by the European Central Bank (ECB). The CPIS now provides a reasonably reliable geographical breakdown of most securities held as portfolio investments and is a unique source for actual cross-border creditors' holdings. However, the ECB and the European System of Central Banks (ESCB) have gone a step further to improve portfolio investment data. This concerns the collection and compilation of financial statistics in general, and portfolio statistics in particular, on the basis of "security-by-security" reporting. However, more needs to be done. As I have argued, supplementary information about FDI valuation based on surveys of firm balance sheets would be useful in providing a more faithful picture of international assets and liabilities. More broadly, the measurement and valuation of the stock of assets and wealth is an area of growing importance for policy, given the increased sophistication of domestic and international financial markets, in which statistical measurement could be improved.

Central banks operate in an environment of high, and even increasing, uncertainty regarding the functioning of the economy as well as its prevailing state and future development. In this context, a rich set of timely statistical data is a precondition for sound monetary policy-making. The example I have discussed here, however, also suggests a "reverse causation" relationship, in which economic theory provides a guide to which data to look for to shape policy decisions.

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DISCUSSION SUMMARY

Vítor Constâncio (Governor of the Banco de Portugal) noted that Europe is lagging behind the United States in some statistics. In his view, the production of statistics should take into account global aspects. This partly explains the endeavours of the ECB and the European Commission (Eurostat) to harmonise statistics. National statistics may loose some of their importance but he felt that national accounts at the country level were still useful. The statistical function would require more resources if, in addition to their traditional responsibilities at the country level, it also had to fulfil the needs at the global level.

Henk Brouwer (Chairman of the ESCB International Relations Committee and Member of the Governing Board, De Nederlandsche Bank) suggested reassessing the scope of the data collected and, therefore, possibly discontinuing some statistics. There was, however, always the risk that, if you discontinued statistics, it would become valuable again at some later stage.

In the opinion of Lucrezia Reichlin (Director General Research, ECB), the users of statistics should be able to define the priorities in statistical developments.

Evangelos Pantelidis (Head of Balance of Payments, Bank of Greece) asked for a clarification on the calculation of the figures on potential savings in statistical reporting. **Brouwer** explained that the calculation of those figures took into account factors such as sampling, greater use of internet-based technology, and the switch from reporting by banks to direct reporting by businesses.

Charles P. Thomas (Chief International Financial Transactions Section, US Federal Reserve Board of Governors) made a plea to avoid overlaps and inconsistencies across different statistical reports. In his view, statisticians should only ask for the necessary data and take into account the format of information available within the companies' internal systems, i.e. the data considered to be relevant by the management and yet consistent with b.o.p. standards. In addition, the quality of the statistics could be seriously undermined if statistical respondents feared that statistical reports could be used as well by the tax authorities.

Hein Blocks (Chairman of the Executive Committee of the European Banking Federation and Managing Director, Netherlands Bankers' Association) quoted the example of one multinational bank, which, while maintaining a single accounting ledger, artificially split its data, so as to report to the statistical authorities in both Belgium and the Netherlands. This artificial split was regarded to be costly by the bank and did not bring any benefits in return. In this context, **Constâncio** recalled the usefulness of having national accounts.

Coen Voormeulen (Director, De Nederlandsche Bank) asked how one was to deal with users' demands for more statistics in the context of further constraints. In order to optimise resources, statisticians could, in his view, concentrate on producing more comprehensive data at a lower frequency.

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3 FINANCIAL INTEGRATION AND FINANCIAL STABILITY: STATISTICAL IMPLICATIONS

JOSÉ MARÍA ROLDÁN

- Let me begin by stressing the importance of information to financial markets, from the economic perspective:
- Financial markets are efficient if financial asset prices fully reflect all the relevant information available.
- The most efficient markets are, therefore, those where the right volumes of information flow with accuracy and speed.
- But information is costly to generate and send, as well as to receive, process and analyse.
- Putting myself in the shoes of a large financial institution for a second, it is clear that, apart from the information it needs to collect for internal purposes to run its business, it may be required to provide financial information to a number of third parties, including:
 - The market place;
 - Market supervisors;
 - Prudential supervisors, perhaps with different sectoral approaches;
 - Central banks;
 - Fiscal authorities; and
 - Statistical bodies.
- But the information demanded is different (in terms of purpose, format, level
 of detail and volume) for each audience. It is not easy to use the same report
 for different purposes or share it with other parties.
- At this point, I should note that, so far, I have only referred to the situation at the national level.
- Now multiply these complexities by the number of countries in which the institution is present and you have a very complex, costly and inefficient situation.

THE APPROACH TAKEN BY EUROPEAN BANKING SUPERVISORS - COMMON REPORTING

- This is particularly an issue in the European Union (EU) context, where the fact that we have 25 countries asking for different information with different definitions, and in incompatible formats, is clearly incompatible with the objective of promoting integration in the financial services sector. So the question is how to address this inefficiency.
- Within the EU banking sector we have been blessed with a combination of events which have served as a catalyst for making progress.
- The first of these is the creation of the Committee of European Banking Supervisors (CEBS).
- CEBS is a high-level committee comprising representatives from the banking supervisory authorities and the national central banks of all EU Member States. It was created in 2004 as part of a package to extend the so-called "Lamfalussy approach" to the banking and insurance sectors and has three main tasks:
 - To advise the European Commission on legislative matters in the banking field;
 - To promote the consistent implementation of EU legislation and convergence of supervisory practices; and
 - To enhance cooperation, and the exchange of information, between supervisors.
- The fact that CEBS' objectives are public, and that the Committee has strong obligations as regards consultation and transparency, coupled with a responsibility to report to the European institutions on its progress, all contribute to promoting progress. CEBS takes its objective of promoting convergence very seriously.
- But, apart from the physical creation of CEBS, there are two major international regulatory developments which have provided the perfect opportunity to make progress towards streamlining reporting requirements and enhancing information flows:
 - Basel II: the new capital adequacy framework, to be implemented in the EU via the Capital Requirements Directive from January 2007; and
 - The international financial reporting standards (IFRS), applied in the EU banking sector since the beginning of 2005.

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- These two developments mean that all supervisory authorities have to change their reporting requirements, and have acted as a driving force for moving towards a more convergent approach.
- CEBS has, accordingly, launched two initiatives to promote common reporting for the EU banking sector:
 - COREP: a common reporting framework for credit institutions and investment firms to report the new solvency ratio that will apply under Basel II. The final framework was published on 13 January 2006; and
 - FINREP: a common reporting framework for financial information under the IFRS. The final framework was published on 16 December 2005.
- Both projects consist of a set of common reporting templates that can be used by institutions across the EU when reporting to their supervisors. The result is that an institution should be able to comply with the reporting requirements of different supervisors using one set of reporting forms.
- And both projects also harness technological developments in order to bring even more benefits.
- CEBS has decided in both initiatives to promote the use of XBRL eXtensible Business Reporting Language. CEBS has developed two "taxonomies" or sets of definitions that are used to "tag" data and facilitate the generation, use and analysis of reports.
- The use of XBRL means that financial information from entities in one part
 of the world can be easily understood and assimilated in other parts of the
 world, as well as facilitating supervisory cooperation and sharing of
 information.
- I have to say that the development and finalisation of these projects was not an easy task, despite the fact that the conditions were probably as good as they could be. We have not only had to bring together the needs of 25 countries, but also to try to manage the expectations of the industry. We have tried to make sure that our efforts will really lead to savings, while resisting a certain tendency on the part of the industry to want to use the initiative to reduce reporting requirements to practically zero!

WHAT ARE THE BENEFITS THAT WE CAN EXPECT FROM THESE INITIATIVES?

 As a result of these two initiatives, I believe that there will be clear benefits, both for reporting institutions and for us, as supervisors receiving information.
 Let me mention some of these benefits:

- Enhanced competitive equality as a result of having common reporting formats across the whole EU;
- Reduced administrative costs for banking groups mainly, but not exclusively, for cross-border groups. Even smaller institutions can benefit, especially from the economies of scale derived from the development of the XBRL taxonomy by CEBS;
- Easier exchange of information between supervisors the compatibility of formats, contents and IT systems supported by XBRL will allow supervisors to collect information in a decentralised way, while having all the functionalities of a centralised database, and to benefit from additional flexibility. This will also contribute to increased cost-effectiveness of supervisory activities;
- A more flexible framework over time the costs of making changes to the information required within the framework should be rather low;
- An increase in the quality of information flows, especially with the use of XBRL, which should reduce reporting errors;
- In general, a smoother functioning of the markets, thereby reducing obstacles to greater integration.

CONCLUSIONS

- It will be clear from my comments that I am a great supporter of the work that has been carried out by CEBS, and also of XBRL as a tool for promoting efficient and high-quality flows of information.
- What's more, I believe that these kinds of initiative could also be usefully extended to other sectors and also outside the EU, in the sense that they permit the same raw information to be easily used for other purposes.
- Today I have focused on initiatives we are taking in the EU banking sector. But, as I mentioned at the start, there are a number of sources of reporting and information demands, of which the banking supervisory community is only one example. I think it is also important to look at the bigger picture to see if there are ways of achieving greater efficiency and effectiveness in information flows to meet these different needs.
- The challenge is to obtain the best quality information, at the right time, and at the least cost to all sides. This is complex but we may find that there are "quick wins".

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"MONITORING CREDIT RISK TRANSFER: A NOTE ON DATA REQUIREMENTS"

JAN PIETER KRAHNEN²

ABSTRACT

The accurate assessment of the risk exposure of individual banks and of the whole banking sector requires a systematic data policy. In this paper we advocate a bottom-up strategy for data collection, starting at the level of the individual financial instrument and its major characteristics. Familiarity with industry practice is as much a prerequisite for measurement as knowledge of financial economics. The paper sets out to give a selective account of the type of information that has to be collected if a supervisor wishes to monitor the risk exposure of banks that employ credit securitisations. The conclusions for data management extend to a broader class of derivative financial instruments.

I INTRODUCTION

The market for credit derivatives has grown tremendously during the past decade. According to data provided by the IMF (2006), the amount of global credit derivatives outstanding, including credit default swaps, credit-linked notes and portfolio-linked notes, increased from less than USD 1 trillion in the year 2000 to more than USD 17 trillion in the year 2005.

This poses a challenge for the supervision of financial stability for two reasons. First, banks are very active participants in this market, transferring substantial credit risk to other market participants. Second, the instruments used for credit risk transfer are typically very complex, since ABS portfolios are restructured and only selected parts are sold to investors, while others are retained by the originating banks. It is not possible to understand the risk-return characteristics of the individual parts without detailed analyses of both the particular reference portfolio and the restructuring process. Thus, assessing in detail the risk exposure of individual banks and of the whole banking sector requires a bottom-up strategy for data collection, starting at the level of the individual financial instrument and its major characteristics. Further insights into the effects of risk transfer are provided in Krahnen and Wilde (2006).

In the remainder of the paper, we will outline a technique for the risk assessment of securitised credit risk. With reference to collateralised debt obligations, Section 2 will explain the data requirements for performing the risk assessment for an

- 1 We are grateful for the financial support of the Deutsche Forschungsgemeinschaft (DFG) and Frankfurt University's Center for Financial Studies (CFS).
- 2 This contribution was drafted in cooperation with Dennis Hänsel and Christian Wilde. Finance department, Goethe University, Frankfurt. Correspondence: Mertonstr. 17-21 (PF 88), D-60054 Frankfurt (Main), Germany; E-mail addresses: haensel@finance.uni-frankfurt.de (D. Hänsel), krahnen@wiwi.uni-frankfurt.de (J. P. Krahnen), wilde@finance.uni-frankfurt.de (C. Wilde).

individual securitisation transaction. Section 3 discusses the ways in which securitisation affects the risk position of banks and the data requirements for accurate measurement. Section 4 describes the additional data needed for analysing the financial stability implications of credit risk transfer. Section 5 concludes.

2 TRANSACTION RISK

At the level of an individual transaction, the process of structured finance creates securities having very different risk-return characteristics. The key questions are: what types of risk are being transferred, and to whom? To obtain an accurate representation of the risks associated with a given transaction, we advocate the process of risk assessment to be bottom-up and based on Monte Carlo simulations, similar to the practice used by major rating agencies. However, the data requirements for this approach are fairly demanding.

In particular, the data requirements for calculating the loss rate distribution of a structured finance transaction include all the institutional and financial aspects relevant to Monte Carlo simulations. These include, first of all, the initial structure of the portfolio, with detailed information on all individual securities, such as:

- 1. type of securitised asset;
- 2. par amount of each portfolio asset;
- 3. the coupon;
- 4. the maturity and amortising schedule;
- 5. the credit quality of the individual assets or the entire asset pool, represented by credit ratings to determine the probability of default for each individual asset;
- 6. characteristics of the ultimate borrower that are relevant for the assessment of rating dynamics, such as industry and country of origin;
- 7. credit migration probabilities;
- 8. correlation structure (correlation within and between industries and countries, macro-factor dependencies);
- 9. expected recovery rates at default.

In case this information is not available for all individual assets in the portfolio, aggregate statistics on the reference portfolio may be useful as an approximation. This information is typically released by rating agencies in "new issue reports". The published portfolio statistics include the average credit quality of the securities, as well as measures of portfolio diversification, such as breakdowns by industry, geographical breakdowns and individual obligor concentrations.

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The second set of components relevant for risk assessment, in addition to the initial portfolio composition, relates to the dynamic nature of the securitised portfolio. Typically, the composition of a securitised portfolio changes over time. This is due not only to defaults and early redemption of certain securities, but also to replenishment, i.e. the addition of new securities. To establish minimum reliable portfolio standards for investors, replenishment is subject to certain provisions, as outlined in the offering circulars. Replenishment provisions guarantee a certain portfolio quality, represented by pre-specified levels for diversity, rating coverage, individual obligor concentration, average security ratings and average recovery rates.

Third, specific features relating to the structuring of the transaction are relevant for risk assessment. These include, in addition to various trigger clauses for early termination of the entire transaction, the means of tranching (i.e. the chosen attachment points for the tranches), the agreed elements of a possible credit enhancement, and the number of tranches to be created and issued.

Beyond the transaction-specific pieces of information presented, for which the offering circulars constitute the basic point of reference, further data requirements for modelling loss rate distributions are taken from additional sources. In particular, in the cases of rating migration, expected recovery rates and correlation structures by type of asset (items 7 to 9 in the above list), worldwide fixed-income securities have to be covered to obtain good estimates. While information regarding rating migration and recovery rates is available from the historical datasets of the major rating agencies, there is comparably little published work on the correlation structure in an economy. Although accurate modelling of the correlation structure is crucial to achieving reliable results with regard to the loss distribution and the risk profile, rating agencies have only recently departed from their traditional approach, which assumed a flat intra-industry correlation rate of 0.3 and zero inter-industry correlation.

Moreover, although there are many provisions associated with an ABS transaction, there is still a certain degree of flexibility with regard to their handling. In this case, established industry practice is an important issue. However, owing to the short history of ABS transactions, information on both industry practice and the past performance of these investments is still very scarce and needs to be collected.

3 INDIVIDUAL BANK RISK

Once the risks related to individual transactions have been identified, the impact of a particular securitisation transaction on the risk position of the issuing financial institution (the primary effect of the risk transfer) can be determined. However, in order to determine the effective change in the risk position of a particular financial institution, two additional (secondary) effects have to be considered. First, do banks take on risks in lieu of those transferred? Second, does the default probability of a bank alter because the leverage changes in line with a securitisation transaction? This may be the case if the securitisation

proceeds are used to pay equity or debt holders (e.g. through debt redemption or dividend payouts) in a proportion other than that of the original leverage.

Thus, data requirements beyond transaction-specific information extend to reinvestment behaviour and payout policy at the level of the issuing institution.

4 SYSTEMIC RISK

Once the risk positions of individual financial institutions have been determined, assessments of the impact of securitisations on systemic risk - i.e. the risk to the financial system as a whole - require the interaction between financial institutions and investors to be taken into account. In particular, it is important to determine who takes on the risks after securitisation and whether or not the risks are effectively transferred outside the financial sector. Such an investigation is essential for an understanding of the implications of credit risk transfer for financial stability.

5 CONCLUSION

For an appropriate representation of the risk position of the financial system as a whole, a bottom-up approach to risk assessment, based on Monte Carlo simulations, seems necessary. While the strength of this approach is its accuracy, it comes at the cost of extensive data requirements that potentially diminish the benefits in practical applications.

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COMMENTS

MÁR GUDMUNDSSON'

I INTRODUCTION

In this session, we have been presented with two papers that look at rather different aspects of the statistical requirements for financial stability. In the first paper, José María Roldán discusses the benefits to supervisors and financial institutions of standardising reporting requirements across different supervisors and across borders. In the second paper, Dennis Hänsel, Jan Pieter Krahnen and Christian Wilde discuss the challenges facing supervisors due to the growth of complicated credit risk transfers. However, what the papers have in common is the question of how to deal with the complexity arising from financial integration and innovation.

In my remarks, I will cover the key issues that, to my mind, are raised by the two papers. First, in the context of Roldán's paper, I will discuss the standardisation of reporting requirements. Second, in the context of Hänsel et al's paper, I will make a few comments on the issue of understanding collateralised debt obligations (CDOs). Third, I will discuss Hänsel et al's specific recommendation on how supervisors should deal with CDOs. Finally, I will provide a few comments on important aspects of the main topic of this session: statistical implications of financial integration.

2 STANDARDISATION OF REPORTING REQUIREMENTS

Roldán makes four main points with respect to the standardisation of reporting requirements. First, that non-standardised reporting to different authorities and jurisdictions will multiply compliance costs for internationally active institutions. Second, that the European Union (EU) has made progress in harmonising reporting to supervisors through Basel II, International Financial Reporting Standards (IFRS) and the work of the Committee of European Banking Supervisors (CEBS), which, since its establishment in 2004, has designed several common reporting templates that are consistent with the Basel II and IFRS guidelines. Third, that data collection, exchange and retrieval have been facilitated by the adoption of eXtensible Business Reporting Language (XBRL), a template for exchanging accounting data and metadata. Fourth and finally, Roldán suggests that the EU approach should be considered elsewhere.

I tend to agree with these statements, which are also consistent with the experience of the Bank for International Settlements (BIS) of standardised reporting in the context of financial market monitoring. Our experience has

¹ The views expressed in these remarks are those of the author and not necessarily those of the BIS. I would like to thank Michael Chui, Blaise Gadanecz, Philippe Mesny, Christian Upper and Karsten von Kleist for discussions and helpful comments.

shown that standardised reporting not only delivers efficiency gains but also leverages individual data contributions due to enhanced comparability. Individual supervisors can thus put their data into the context of other supervisors' standardised data, creating the potential for international benchmarking and easier investigation of outlier positions or unusual exposures.

It should also be mentioned that a complementary effort to XBRL is under way in the form of the Statistical Data and Metadata Exchange (SDMX) standard. The aim of this standard, the result of a joint initiative by the BIS, the European Central Bank (ECB), Eurostat, the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the United Nations (UN) and the World Bank, is to do for general statistical reporting what XBRL has done for accounting data. The SDMX technical standards have been approved by the International Standards Organization (ISO), and by the end of March 2006 all its major building blocks had been released on www.sdmx.org. The first major practical implementation of SDMX took place with the development of the Joint External Debt Hub (www.jedh.org) by the BIS, IMF, OECD and the World Bank. It was made possible by the standardisation of reporting requirements for external debt that was agreed between the four international institutions in 2003. Plans are currently afoot to make XBRL and SDMX interoperable. A promising workshop attended by the respective experts was held at the BIS in late 2005 in order to initiate discussions on the most effective ways to reach that goal.

3 UNDERSTANDING CDOs

The main contribution of the paper by Hänsel et al is its illustration of the structure and potential life of specific CDOs. This is interesting in its own right and goes beyond examples usually found in the literature, as the authors complement the description of the main characteristics of the structure with a Monte Carlo analysis of the evolution of the default rates over time. Perhaps the most interesting result in Hänsel et al's paper is the comparison of tranche sizes (defined as distance between the thresholds between rating categories) obtained from the Monte Carlo simulations with the actual tranches. The results indicate that the actual senior tranches have a lower probability of default than indicated by the rating. This is in line with the finding that the first-loss pieces tend to be larger than the expected losses of the transaction. Thus the authors find that, given their assumptions, the first-loss piece is on average three times larger than expected losses. According to the simulations, almost all of the loss is retained, as the authors find that there is on average only a 16% chance that losses will exceed the size of the first-loss piece.

These results are sensitive to the assumptions behind the simulations, in particular regarding correlations. This is acknowledged by the authors, who find, unsurprisingly, that as correlations increase, the probability mass is shifted to the tails of the distribution, and that the effect can be considerable.

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4 CDOs AND SUPERVISORS

Hänsel et al are surely correct in stating that the growth of structured finance and credit risk transfers has made it more difficult for supervisors to assess the risks of financial institutions. They demonstrate that models of the structure of individual CDOs and the associated data are needed in order to make good quantitative estimates of these risks. It would then be possible to calculate the loss distributions for individual instruments, individual banks and the financial system as a whole. Such an approach would track credit risk transfers within the financial system and take full account of correlations of risks between financial institutions. For this reason they recommend that bank supervisors adopt precisely this approach.

However, it would be a tall order for supervisors to replicate, in this respect, the work of banks' internal risk management departments. Such a task would require significant qualified resources that are already in short supply. Furthermore, the progressive integration of the financial sector at the European and even global level means that any such exercise would have to be carried out in an area beyond national jurisdictions.

It seems to me that Hänsel et al's proposal goes against the grain of modern banking supervision, which has moved in the direction of certifying processes and models and away from detailed auditing of transactions. An alternative approach would thus be to focus on understanding the risk profiles of CDOs in order to certify the associated models used by banks for assessing and pricing risk and provide scenarios for stress tests. Correlations across banks could then be dealt with by asking banks to simultaneously perform stress tests with standardised assumptions. To capture feedback effects supervisors could use the results to calculate new prices based on the aggregated changes in positions produced by the stress tests. These prices could then be given to the banks for a second round of stress testing.

It is of course possible that I am being too pessimistic about the prospects for supervisory authorities being able to calculate and maintain an updated loss distribution of CDOs for the financial system as a whole at, for instance, euro area level. One possibility here would be to set up a specialised unit at the euro area or EU level that would perform research on risk profiles of CDOs and other complex financial instruments and then assist supervisors in this area. The work of such a unit might, through time, reveal the impracticality (or practicality, as the case may be) of the more ambitious approach proposed by Hänsel et al.

5 STATISTICAL IMPLICATIONS OF FINANCIAL INTEGRATION

Financial integration is an ongoing process, but financial stability is an elusive goal. The result is that statistical requirements are constantly changing. A good example of this is the development of the BIS banking statistics. Although widely

used, these statistics derived in large part from the need of the Committee on the Global Financial System (CGFS) to monitor global financial stability.

The BIS international banking statistics emerged in the 1960s in order to capture cross-border financing activity on the Eurocurrency markets. This original set of banking statistics was intended to complement domestic monetary and credit aggregates. The statistics are thus compiled in a way which is consistent with the system of national accounts and balance of payments statistics. They are called *locational* as they are based on the residency of the reporting banks and are, as such, useful in compiling external debt statistics for borrowing countries.

In contrast to the locational banking statistics the consolidated banking statistics report exposures classified by the residency of the ultimate bearer of risk. These statistics had their origins in the expansion of international banking activity in the Caribbean and other offshore centres in the 1970s. At the time, little statistical information was available on such activities. Those central banks which contributed to the locational banking statistics therefore asked their banks to consolidate any positions booked at their offshore offices with positions booked at their head offices.

The consolidated banking statistics were improved in the early 1980s, following the onset of debt crises in Mexico and other developing countries. These crises focused attention on transfer risk, i.e. the risk associated with policy measures that have a territorial jurisdiction, such as capital controls and payments moratoriums. To better capture the aggregate exposures of national banking systems to developing countries, banks were asked to fully consolidate their on-balance sheet claims on borrowers residing outside the country where the bank was headquartered. These improvements made the consolidated statistics suitable for use in monitoring banks' risk exposures.

The next major improvement to the consolidated banking statistics occurred following the Asian financial crisis of 1997-98. A lack of transparency was frequently cited as a factor contributing to the crisis. Therefore, a concerted effort was made to enhance the timeliness, frequency and coverage of the consolidated statistics. They began to be published quarterly instead of semi-annually; the reporting lag was shortened; 12 additional banking systems joined the reporting population; and the geographical breakdown was expanded to include all countries instead of solely developing countries.

During the 1990s, new types of business were increasingly added to traditional cross-border lending. Banks became, for instance, increasingly active in derivatives markets in order to accommodate customers' risk management requirements, hedge their own risk exposures, or take speculative positions. The consolidated banking statistics were therefore expanded in the late 1990s to capture guarantees received and other credit enhancements which result in the reallocation of reporting banks' risk exposures from the immediate borrower to another (ultimate) obligor. Furthermore, in 2000 the CGFS recommended that the consolidated statistics be expanded to fully incorporate risk reallocations, derivatives exposures, guarantees extended and credit

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commitments, most of which are off-balance sheet. Its recommendations led to the latest enhancements to the statistics (see McGuire and Wooldridge (2005)).

This expose of the BIS banking statistics illustrates how ongoing financial integration and innovation result in new demands being made on such statistics. In this light, one can be sure that the ECB statistics conference will be a long-standing series!

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DISCUSSION SUMMARY

The Chair, **Yves Mersch**, (Governor of the Banque centrale du Luxembourg) introduced the discussion by linking it to the trade-off between the users' need for more information on the one hand and the requirements to limit the costs and the response burden on the other hand. More information allowed for a better decision-making process, which was important for economists and supervisors, while the latter pointed to the need for further harmonisation and cooperation, particularly within the EU, in order to avoid duplications and to increase the efficiency of statistical operations.

Hein Blocks (Chairman of the Executive Committee of the European Banking Federation and Managing Director, Netherlands Bankers' Association) questioned whether transparency may give rise to other new risks during a crisis. He mentioned that in the past small banks had been saved by bigger institutions with the approval of their supervisors. The speaker raised the question of how supervisors would find a solution in a completely transparent world. José María Roldán (Director General of Banking Regulation, Banco de España and former Chairman of the Committee of European Banking Supervisors) agreed that transparency was good as it implied a greater discipline. However, space for "constructive ambiguity" should be left in times of crisis. Jan Pieter Krahnen (Johann Wolfgang Goethe University Frankfurt am Main, Director of the Center for Financial Studies) pointed to two types of equilibrium: a transparent and a non-transparent equilibrium, to which the agents would adapt. The transition from one type of equilibrium to the other is a critical phase that gave rise to a number of risks. For example, the recent introduction of fair value accounting had brought about a sudden transparency, and increase the exposure of, hedge funds, while rating agencies were still used to a world which was not so transparent. Már Gudmundsson (Deputy Head of Monetary and Economic Department, Bank for International Settlements) recalled that some crises arose due to a lack of transparency, while others were avoided by a lack of transparency, but that no financial crisis was actually caused by transparency.

Luigi Signorini (Banca d'Italia) looked at the impact of new technology on statistics. He believed that increased reporting could be done at almost no cost if it was based on data that are already available within the internal system of the reporting institution and if it was standardised. On the other hand, the discontinuation of a data collection would also be costly, implying modifications to the IT system. The cost assessment of new statistical requirements should focus on the initial set-up costs. **José María Roldán** noted that while information technology offered great opportunities, reporting requirements should always be truly justified.

Yves Mersch concluded the discussion by saying that some questions had remained unanswered. For example, do we need to stretch the net of supervision in the financial system? Should we monitor or filter the risk transfer across balance sheets by continuously modifying our statistical reporting methods?



4 GLOBAL STATISTICAL GOVERNANCE

MARIE BOHATÁ

It is today widely accepted that good government requires good statistics. This also applies to monetary government, at least for the last thirty to forty years owing to the increased powers of central banks following the end of the Bretton Woods system. However, good monetary government requires good monetary statistics as well as good general economic statistics. This is why the relations between central bankers and official statisticians have become ever closer over past decades and why central bankers are increasingly concerned about statistical governance, i.e. the way official statisticians produce the statistics required for monetary policy purposes. Thus their interest goes beyond obtaining the required statistics. Moreover, this is why the European Central Bank (ECB) regularly organises conferences on issues related to official statistics!

The reasons for the importance of good statistics for monetary and economic policy-making are well-known, but it is nevertheless worth repeating them here. This brings me to my first question: Why are official statistics so important for economic and monetary policy-making? They are important because they:

- facilitate the formation of expectations of financial markets and stabilise them:
- help monetary policy-makers get a grasp of the actual economic situation, above all the cyclical position and momentum and inflation dynamics;
- facilitate the conduct and coordination of national fiscal policies, ensuring that such policies comply with the Treaty on European Union; and
- render the policy conduct of central banks transparent and provide a measuring rod, a kind of overall performance indicator for their success or failure.

If official statistics were not as good as required, we could suffer from:

- unstable expectations, thus unnecessary market volatility;
- an economy and, above all, financial markets that are wrapped in fog, leading to economic uncertainty and in all likelihood higher than necessary interest rates;
- inadequate fiscal policies, leading to policy inefficiency and unnecessary welfare losses;
- uncertainty about compliance by Member States with the Treaty, leading to political tension; and

 lack of transparency, making it more difficult for financial markets to anticipate monetary decisions, and looser policy transmission mechanisms.

This is, of course, not to suggest that our economies, or even societies, do not function properly without official statistics, but if the statistical apparatus is performing well, there is at least a chance for them to function better. I am quite sure that you will agree that for an economic and political entity that is as new (and revolutionary) as the euro area, good statistics are even more important than for traditional nation states with a well-established central bank and historical record.

Now I would like to invite you to take a closer look at what kind of general economic statistics official statisticians have to deliver in order to facilitate good central banking.

Official statisticians are called upon to provide quite a bundle of general economic statistics for policy-making: quarterly national accounts, various price statistics, various business statistics and a range of labour market and external trade statistics. In most cases, they have to compile high frequency statistics, on a quarterly and sometimes monthly basis.

However, in order to be effective, these official data have to fulfil a number of quality requirements: they have to be credible, timely, coherent, accurate, transparent and complete.

These requirements are of particular importance when using official statistics for monetary policy purposes in general and for the management of Economic and Monetary Union (EMU) in particular for the following reasons:

- above all, central bankers need timely statistics in view of the sometimes quite long transmission delays of policy decisions. Moreover, the timing has to be in line with policy processes;
- European central bankers need Community statistics, in particular, to be as timely as the corresponding American statistics in order to be able to act forcefully in an interdependent world economy;
- central bankers also need a description of the state and momentum of the economy that is as complete and coherent as possible in order to also take secondary effects into consideration; and
- central banks need credible statistics that are beyond doubt, because they
 draw upon them to explain their decisions. Their policies can only be credible
 if the statistics to which they refer are credible.

Therefore, in 2000, the ECB laid down a catalogue of statistical requirements for EMU based on a preparatory catalogue prepared by the European Monetary Institute (EMI) in 1996. This report is still a kind of mission statement for official statisticians in the European Union. Unfortunately, the EMU

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requirements are quite difficult to fulfil. Just real enormity of the challenge of EMU for official statisticians in the EU is something that they have had to find out the hard way in recent years. Fulfilling these requirements was already difficult with 15 Member States. Some Member States already had a functioning statistical apparatus that was adequate for supporting the conduct of monetary policy, while others did not. Even those Member States which had such an apparatus in place had geared this apparatus to national policy traditions. This made it difficult to agree on what to do, how and when. The very fact that the Short Term Statistics (STS) Regulation was not adopted until 1998 after many years of endless discussions and was only fully implemented more than five years later illustrates how difficult it was to prepare for EMU. This is now particularly difficult to achieve with 25 Member States. Some Member States have introduced the euro, while others would like to do this and a few are unable, reticent or even disinclined to introduce the euro, at least, at this stage. Clearly, this heterogeneity of interests makes it quite difficult for all the Member States to agree on what needs to be done.

Nevertheless, despite all these difficulties resulting from the structural differences among the national statistical apparatuses, official statisticians have shown their ability to act. Official statisticians throughout the European Union and especially in some of the larger Member States have rolled up their sleeves and got on with the implementation of national action plans in the context of the EMU Action Plan and their work on Principal European Economic Indicators. This has led to several significant improvements: a retail trade index much earlier, a new orders index coming on stream, a GDP flash estimate 45 days after the end of the quarter, and an HICP flash estimate at the end of the month. Moreover a couple of gaps are now gradually been filled, most notably for quarterly sector accounts, but also for import prices and job vacancies.

The progress achieved in recent years has been recognised not only by the ECB and the European Commission, but also by the Economics and Financial Committee (EFC) and even by the ECOFIN Council. This is something official statisticians can be proud of.

However, as stated in the latest Progress Report, more needs to be done. This brings me to the main theme of my presentation, namely statistical governance, because we are now more than ever called upon to ensure adequate governance in official statistics. Statistics, especially Community statistics, can only be good if the underlying governance structure is robust and efficient. This involves making improvements to the statistical system and the way in which it works, rather than improving particular indicators, one after the other. First, some very practical things need to be done, such as coordinating release and revision policies more closely, or harmonising seasonal and working day adjustment practices. It also means exploiting technological changes by introducing better data transmission tools and establishing a common infrastructure for dissemination. We must also do some political homework, because we have to find organisational and political arrangements that allow us to respond faster to new needs or speak out collectively with authority. These are just a few of the most prominent issues.

However, if we look at the broader picture, it is worth recalling that the improvement of the overall governance structures for official statistics is not a new topic for Community statisticians. Governance structures have changed considerably since the compilation of Community statistics began in the 1950s.

Things started in a highly fragmented way with domain-specific committees for coal and steel, agriculture, foreign trade, etc. and a series of annual and later semi-annual conferences attended by the heads of national statistical institutes, covering, among other things, systemic aspects. Since the early 1970s this governance structure was seen to be inadequate not so much for statistical reasons, but for organisational reasons, such as programme planning, resources, infrastructure, etc.

However, it took nearly 20 years for a more systemic or system-oriented governance structure for Community statistics to be put in place. It was, of course, quite helpful that the general Community governance system also developed, with the adoption of the Single Act and thus the introduction of the comitology system.

The governance of statistics is now mainly shaped by the Statistical Programme Committee as key comitology body, the Confidentiality Committee, the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) as advisory committee, which brings together the national statistical institutes and central banks, as well as Council Regulation (EC) No 322/97 of 17 February 1997 on Community Statistics (the "Statistical Law") and the Commission Decision (97/281/EC) of 21 April 1997 on the role of Eurostat as regards the production of Community Statistics.

Of course, the working groups for each subject continue to meet (up to 200 per year) in order to develop and improve European statistical methodologies.

This fairly elaborate structure worked quite well in the run-up to EMU – for example the convergence reporting and early EDP notification – but it has to be strengthened further above all to enable official statisticians to fulfil the day-to-day statistical requirements for EMU. However, this is not to say that the current core governance structures are inadequate, rather that they need to be complemented.

Discussions among official statisticians were and still are quite helpful, but what is now needed is self-regulation on key organisational aspects that lie at least partially outside the classical remit of the Community competence in official statistics, for example the work on the European Statistics Code of Practice for the national and Community statistical authorities. With the Code of Practice being adopted by the Statistical Programme Committee in February 2005 and promulgated in a Commission Recommendation in May 2005, the next step towards improved governance structures will be the monitoring of its implementation by all bodies concerned. It is worth mentioning that any measure to improve openness, participation, accountability, effectiveness and coherence

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throughout the ESS fits very well with the Commission's overall policy of European governance.

Obviously, any improvement in the governance structure for official statistics in general – and official Community statistics in particular – has to be achieved (a) in full compliance with the Treaty and (b) in full awareness of national statistical governance structures, with all their specific features.

If we look at what is currently being done to improve governance structures for Community statistics, two lines of action are being pursued: first, a top-down approach, with the Code of Practice at its centre and, second, a bottom-up approach, consisting of a series of practical (quality improving) initiatives in national accounts, business statistics, labour market statistics or price statistics undertaken at working group level. Some of these were launched by the FROCH Group, carried forward by working groups and endorsed by the ECOFIN Council, in the aim of coordinating statistical processes more closely beyond legal requirements.

When drawing up the Code of Practice, we were able to take advantage of a considerable stock of common, widely-shared values, as embodied in our professional integrity or our scientific objectivity, for example the Fundamental Principles adopted by the UN Statistical Commission in 1994. We were also able to draw upon the general acceptance of some institutional arrangements. Some of these already formed part of the "acquis communautaire" in statistics, such as confidentiality. Others were already cast into a common declaration as was the case with quality declaration of the European Statistical System (ESS). Still others were accepted as a matter of principle, as was the case for scientific independence. As far as the operational arrangements are concerned, the principles laid down in the Code are already being applied with varying degrees of success in our daily statistical work.

All in all, there is nothing completely new in the Code. However, I am convinced that bringing together all those principles that are supposed to govern our work as official Community statisticians in a single document will bear its fruits in the years to come. It will make us more robust at all levels of the statistical system. If it is fully respected throughout the European Union, the Code will facilitate our daily work and prevent doubt being cast on the results of our work. Central bankers, as one of our key clients, will definitely benefit from this.

As far as the practical steps are concerned, this is a fairly lengthy process. It is certainly very helpful that, when discussing the EFC Status Report on Information Requirements in EMU, the November 2005 ECOFIN Council called for closer coordination of release, revision and dissemination practices and seasonal and working day adjustment for European aggregates. With this support we might be more successful in the future. Anyway, it is my basic conviction that time is on our side. The longer we work together, the more we try to adopt best practices and the more certain it is that we can coordinate some of our

more operational practices. This is again something that central bankers would like to see happening.

Finally, I want to make it absolutely clear that, although we have to provide statistics for good governance in the EU, we are fully aware that there is a broader context still. Thus we are also contributing to adequate statistical governance at OECD or UN level.

What lies ahead in terms of improving governance structures for Community statistics?

First, we have to see to it that the Code of Practice is fully implemented at all levels of the system. We are working on this, as the code also applies to Eurostat. I am convinced that this will be achieved over the coming years. No doubt, the self-regulatory character implies that Member States and Eurostat have to implement the Code at their own speed. However, self-assessments, peer reviews, benchmarking currently under way and the identification of (Code-relevant) best practices will guide its implementation by Member States. Eurostat will monitor the implementation of the Code and report regularly on the implementation progress. All of this will generate a lot of momentum and give rise to helpful synergies so that the Code might even be implemented faster and more comprehensively than we could have imagined at the outset.

One major initiative in the context of implementing the Code at Community level is the setting up of a ESS high-level advisory group. This body will:

- report to the European Parliament and the Council on the implementation of the Code by Eurostat, as well as on general rules and principles for the functioning of the ESS as a whole;
- advise the European Commission on appropriate measures to facilitate the implementation of the Code with a view to improving statistical governance;
- assist the European Commission in enhancing the credibility of Community statistics and, in particular, communicating the Code of Practice to users and data providers; and
- formulate recommendations for updating the Code of Practice.

All of these actions are in line with the November 2005 ECOFIN conclusions, which confirm the importance of adequate practices, resources and capabilities to produce high quality statistics at the national and European level with a view to ensuring the independence, integrity and accountability of both national statistical offices and Eurostat.

As regards the Principal European Economic Indicators (PEEIs), the tone was set in the 2002 Commission Communication and echoed by the November 2005 Council conclusions. We are expected to identify and promote indicator-specific best practices and ensure that key statistical processes are much better

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coordinated. In view of the progress achieved to date, I am optimistic that further progress will be made.

Moreover, we have to make the official character of our statistics much clearer than in the past. The introduction of a label "official statistics" might make it easier for us to make the specific aspects of official statistics better understood by our users.

Finally, in the longer-term perspective, we need to increase our systemic efficiency through closer cooperation (if not operational integration) and reduce costs though building a shared infrastructure in specific domains and for specific processes. I hope that the creation of "Centres of Excellence" might help in this context.

To conclude, there were many changes for the better in statistical governance structures in the late 1980s and throughout the 1990s. Milestones included the creation of the Statistical Programme Committee (SPC), the CMFB and the European Advisory Committee on Statistical Information in the Economic and Social Spheres (CEIES) and the adoption of the "Statistical Law", as well as the Commission Decision (97/281/EC) of 21 April 1997 on the role of Eurostat as regards the production of Community Statistics. These all helped us to develop the bulk of Community statistics for EMU purposes. We got off to a slow start, but now we have picked up momentum and can look back at some very significant achievements.

More recently, the Code of best practice on the compilation and reporting of data in the context of the excessive deficit procedure was endorsed by the ECOFIN Council in 2003 and the Code of Practice on European Statistics adopted in 2005 by the SPC. This will help us to do what you, the central banking community, want us to do and what the Council also wants us to do, as laid down in the conclusions of the ECOFIN meeting on 8 November 2005 when the 2005 EFC Status Report on Information Requirements in EMU was discussed. Both the ECB and the Council would like to see the "First-for-Europe" principle for PEEIs to be reinforced, with regard to a closer coordination of the release, revision, and dissemination practices, seasonal and working day adjustment for European aggregates, and the use of European sampling schemes. Thus official statisticians are called upon to improve very practical and operational governance arrangements for the compilation of PEEIs. We are quite confident that we can achieve this. Member States, above all the larger ones, are committed to doing what is necessary to facilitate the compilation of European aggregates. In doing so, they are indeed working together in accordance with the "First-for-Europe" Principle.

Looking back, I would like to stress that the recent crises in official Community statistics, however painful and regrettable, have now been mastered and converted into positive actions. Thus we all have reason to look with confidence to the future. Our governance structures in official Community statistics will continue to improve and become more robust, and the quality of our statistics will also get better. It is also possible for me to conclude with such an optimistic

tone, because I believe that we will continue to receive the support from the central banking community in the future, just as we have received it in the past.

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"STATISTICAL GOVERNANCE IN A GLOBAL ECONOMY"

ROBERT W. EDWARDS

ABSTRACT

This paper reviews the present international arrangements for the development, promulgation, and implementation of international statistical standards in key areas of macroeconomic statistics and in the encouragement of adoption of best practice in national statistical systems. The role played by the International Monetary Fund is seen as one of collaboration among international, supranational, regional, and national agencies. Current and future work is reviewed in the context of emerging statistical issues arising in a globalised world.

I INTRODUCTION

The mission statement of the Statistics Department of the International Monetary Fund (IMF) acknowledges the need for strong leadership in the development and application of sound statistical practices in the IMF, in member countries, and in the international statistical community at large. In this endeavour, the department plays a pivotal role in the development of internationally accepted methodologies and standards, provides technical assistance and training to promote the adoption of these standards, and models best practices in the dissemination of economic and financial statistics. The department is a partner along with other international, supranational, and regional organisations, and the national statistical authorities, in a loosely governed international statistical system.

The "glue" that binds the many players together is a shared belief in a code of professional ethics – relevance, integrity, access for all, professionalism, trust of providers – which has been codified in the *Fundamental Principles of Official Statistics*, first adopted by the United Nations Economic Commission for Europe in 1992.² The desire to measure economic, social, demographic, and environmental phenomena in coherent and comprehensive ways has necessitated the development of statistical frameworks, which need to be widely adopted. Coordination, collaboration, and cooperation among the players became a necessity in an international system, which has been described as one operating in an environment of "creative ambiguity".

- Paper prepared for Session 4 (Global Statistical Governance) at Third ECB Conference on Statistics, "Financial Statistics for a Global Economy", May 4-5, 2006, Frankfurt, Germany. The author gratefully acknowledges the contributions of his colleagues in the Statistics Department of the International Monetary Fund in the preparation of this paper. The views expressed in this paper are those of the author and should not be attributed to the International Monetary Fund, its Executive Board, or its management.
- 2 The *Fundamental Principles* can be accessed at http://unstats.un.org/unsd/methods/statorg/FP-English.htm.

This paper focuses on the role that the IMF plays in the international statistical system. The IMF has a particular interest in macroeconomic statistics, not only from the perspective of its own analytical and policy work, but also reflecting the international public good aspects of statistics in contributing to the efficient functioning of international financial markets. Work on the development and implementation of international statistical standards is described, as is the promotion of robust data dissemination arrangements. This is followed by an analysis of the governance arrangements pertaining to a number of internationally coordinated compilation exercises. The final section draws the various threads together and reviews present arrangements in the context of emerging data requirements of the globalised economy.

2 INTERNATIONAL STATISTICAL STANDARDS

2.1 The IMF role

Effective multilateral surveillance of the international financial system and bilateral surveillance of member country circumstances requires access to a comprehensive range of statistics. Over the years since its inception, the IMF has assumed custodianship of international statistical standards for balance of payments, monetary and financial statistics, and government finance statistics. The recognition that each of these datasets needed to be coherent with the overarching framework of the system of national accounts inevitably led to strong IMF interest in those latter statistics. With the evolution of the international financial system the data demands expanded, but again in the context that statistical series needed to be harmonised one with the other.

The IMF's particular interests in statistical standards and methodologies now extend to cover:

- System of National Accounts (1993)
- Consumer Price Index Manual (2004)
- Producer Price Index Manual (2004)
- Government Finance Statistics Manual (2001)
- Monetary and Financial Statistics Manual (2000)
- Balance of Payments Manual, fifth edition (1993)
- International Merchandise Trade Statistics: Concepts and Definitions (1998)
- Manual on Statistics of International Trade in Services (2002)

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- International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template (2001)
- Coordinated Portfolio Investment Guide (2002)
- External Debt Statistics: Guide for Compilers and Users (2001)
- Financial Soundness Indicators: Compilation Guide (2006)
- Monetary and Financial Statistics Compilation Guide (forthcoming)

Governance arrangements in the development of some of these standards are now described

2.2 National Accounts

In 1983, the United Nations Statistical Commission decided to update and clarify the then international standard for national accounts (the System of National Accounts 1968 (1968 SNA)) and to harmonise it further with other international statistical standards. Two years later, the Commission entrusted a newly established Inter-secretariat Working Group on National Accounts (ISWGNA) - consisting of Eurostat (the statistical office of the European Communities), the IMF, the Organisation for Economic Co-operation and Development, the Statistical Division and regional commissions of the United Nations, and the World Bank – with the planning, organisation, and coordination of the SNA review and revision process. The five member organisations worked with numerous experts and national statistical offices over the period of a decade in the development of the conceptual framework of the revised system through an unprecedented programme of cooperation and burden-sharing. These efforts were evidence of the increasing recognition of the SNA as the basis for an international standard for national accounts for statistical systems in both developing and developed countries, and as an overarching framework for a coherent system of statistics more generally. The prepared manuscript was unanimously adopted by the Statistical Commission in 1993 and published by the five international agencies under the title System of National Accounts 1993 (1993 SNA).

After the publication of the 1993 SNA, the national and international statistical systems were faced with the challenge of designing strategies for the rapid and full implementation of the new system. It was recognised that the scope and pace of this implementation should be decided by each country according to its own analytical and policy needs, the current state of its basic data and the resources available for implementation. Consequently, the ISWGNA, following the same cooperative and coordination arrangements that governed the revision process, focused on how best to assist countries in the implementation process. It agreed on a support system that included four key elements:

- a. meetings, training seminars, and workshops in national accounts and related subjects;
- manuals, handbooks, compilation guides, and training materials for use in national accounts courses and software in support of national accounts compilation;
- c. research activities designed to support future conceptual development of national and satellite accounting and also to resolve conceptual and practical problems in implementing the new system, including the development of case-law interpretations of the SNA in response to queries; and
- d. technical cooperation activities in individual countries.

To facilitate its work, the ISWGNA decided to combine a rotating annual chairmanship (currently held by the IMF) and a permanent secretariat (assigned to the UN Statistical Division). In 1995, the ISWGNA started a biannual newsletter called *SNA News and Notes* as a forum of information and dialogue with statisticians and analysts worldwide. *SNA News and Notes* keeps interested parties informed of new developments, experiences gained in the course of implementation, seminars and workshops, and other matters.

In addition, the secretariat set up a website³ which includes, among other things, a searchable electronic version of the *1993 SNA*, information on related handbooks, "city" groups,⁴ databases, and minutes of the ISWGNA meetings and reports to the UN Statistical Commission. The website also provides extensive information on the current update of the *1993 SNA*,⁵ on which I will return below.

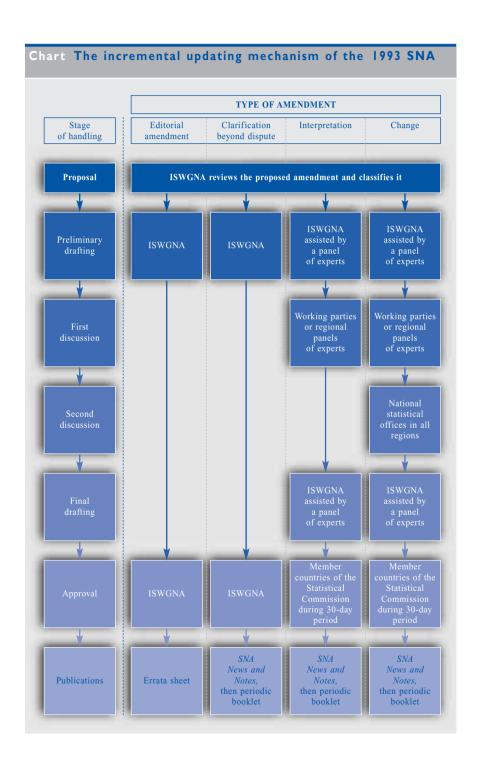
The ISWGNA prepares an annual report for the UN Statistical Commission. A standard section in this report concerns the progress on the 1993 SNA implementation. The 2005 report also reviewed the importance and relevance of various potential impeding factors in the implementation of the 1993 SNA: the institutional environment, availability of computer equipment, staff resources in terms of number, level, turnover, recruitment, participation in statistical training programmes, the availability and scope of basic data, and practices in data collection. In response, the UN Statistical Division undertook to take the lead in devising a strategy to address the impediments to 1993 SNA implementation, which would focus on Africa. The UN Statistical Commission confirmed the need to improve basic data for national accounts compilation, based on best practices and taking into account the different levels of statistical development in countries.

Changes in the economic environment necessitate periodic updating of the 1993 SNA to ensure and maintain its relevance. Initially, an incremental updating

- 3 Accessible at http://unstats.un.org/unsd/nationalaccount/nadefault.htm.
- 4 See Section 6 below for further discussion of "city" groups.
- 5 See http://unstats.un.org/unsd/nationalaccount/snarev1.asp.

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mechanism was used (see Chart below). However, increasingly it was felt that prospective changes to the 1993 SNA should be more adequately and comprehensively dealt with to ensure the integrity and consistency of the system.



In 2003, the ISWGNA was mandated by the UN Statistical Commission to start such a comprehensive review of the 1993 SNA. However, the process was not to lead to fundamental changes and, in that light, should be considered an update rather than a full-scale revision. The conditions set regarding the update were the following:

- a. the scope of the review should be limited in order to prevent a widening statistical divide between countries at different levels of implementation of the 1993 SNA and avoid compromising international statistical comparability;
- b. the consistency between the SNA and other macroeconomic (financial) statistical standards like the *Balance of Payments Manual and Government Finance Statistics Manual* should be maintained and where possible improved;
- c. where feasible, the latest developments in the international business accounting standards were to be taken into account;
- d. any amendments proposed to the 1993 SNA should not only adhere to conceptual integrity but also take the implementation aspects in countries into account;
- e. the discussion of issues was to be brought to conclusion in a spirit of consensus, with a broad involvement of all countries.

In summary, the review process focuses on a limited number of carefully selected issues, while preserving the conceptual framework and the majority of existing recommendations of the SNA. Thus the implementation of the 1993 SNA should proceed in all countries and regions while the updating of the well-specified issues is in progress.

The Advisory Expert Group on National Accounts (AEG, see further below) selected 44 issues to be reviewed for potential inclusion in the 1993 SNA, Rev. 1 (see list at Appendix I). Among those, several are related to globalisation. A distinction between two groups can be made. The first group is related to cross-border flows of goods, services, capital, and people. Many of the issues in the first group were proposed in the framework of the update of the Balance of Payments Manual, fifth edition, and they cover issues such as the treatment of holding companies, special purpose entities, goods sent abroad for processing, and the treatment of non-permanent workers. A second group will improve the comparability of statistics produced in different countries. Among these could be mentioned the proposals regarding employer pension schemes, the treatment of non-performing loans, the definition of financial services, the inclusion of cost of capital services in the estimate of government output, the informal sector, and the recording of taxes.

The governance structure of the 1993 SNA update project involves a number of bodies, each with a well-defined function. They comprise the ISWGNA at the "management" and the "national accountants" levels, a Project Manager, an Editor, the AEG, and countries. In addition, there is a secretariat and an

institution responsible for managing the Trust Fund, which supports the update process. Their attributes are described in turn.

The ISWGNA: Management Group's function is, collectively, to ensure appropriate outputs and inputs for the project and lay the ground for successful outcomes. (Of course, the managers also act within their own organisations to further the agreed goals and objectives of the ISWGNA.) Their specific activities and tasks are as follows:

- a. Agree on the governance arrangements for the project and endeavour, collectively and individually, to support the thrust of those arrangements for the duration of the project.
- b. Set the strategic direction of the project (within the parameters set by the UN Statistical Commission), ensure appropriate input and outputs, and agree on desired outputs and outcomes with the Project Manager.
- c. Assess and ratify the overall work plan, schedules, communication strategy, and budget of the project.
- d. Address project resource issues, and raise funds as needed to support the project.
- e. Receive, and act upon as needed, regular reports on progress toward outputs and outcomes, budgets, and stakeholder views and concerns, including any matter (for example, on the scope of the project) that puts the agreed outputs/outcomes at risk.
- f. Report to the Statistical Commission.
- g. Liaise with stakeholders, managing their expectations and gaining their support.

A central function is taken by the Project Manager, a consultant function held by the former IMF Statistics Department's Director, Mrs Carol Carson. She reports to the ISWGNA: Management Group. In turn, the Editor reports to the Project Manager. The Project Manager provides oversight to the ISWGNA: National Accountants as a body and provides guidance to the support units. The tasks and responsibilities, in line with the qualifications just noted, are as follows.

- a. Output and outcomes
 - Agree on desired outputs and outcomes with ISWGNA: Management Group.
 - Report regularly on progress, including any matter that puts agreed outputs/ outcomes at risk.
 - Deliver quality intermediate and final outputs on time and within budget.

b. Organisation of work

- Review and confirm the overall work plan, prepare schedules for intermediate outputs and activities, track progress, and take appropriate action as needed.
- Develop a communication strategy consistent with transparency, sequenced to stay within the time constraints, and supportive of successful outputs and outcomes.
- Prepare and monitor the cash and in-kind project budget (fund-raising being the task of the ISWGNA: Management Group).
- Assign (in respect of reporting relationships) or negotiate (in respect of guidance and oversight relationships) tasks of the technical and support teams, track progress on tasks, and note completion of tasks of dedicated and contributed project resources.

c. Liaison and communication

- Liaise widely, most especially with stakeholders, to manage their expectations and gain their support.
- Facilitate communication among ISWGNA: Management Group.
- Participate with the ISWGNA: National Accountants in the process and technical discussions as needed.
- Participate in the AEG and participate in other technical consultations (for example, Canberra Group II) as needed.

d. Technical matters

- Ensure adequate and effective review of technical matters.
- With the Editor, provide oversight of the overall consistency of the SNA,
 Rev. 1 and harmony with other macroeconomic statistical standards (including balance of payments and government finance statistics).
- Facilitate settlement of contentious issues and, in consultation with the Editor, take decisions as needed.

e. Other

 Conduct a 360° review of the governance arrangements put in place after one year and periodically thereafter until the completion of the project.

f. By-product

 Analyse and formulate views about implementation, drawing on liaison with the stakeholders and others.

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The Editor has the following tasks and responsibilities:

a. Outputs

- Progressively draft recommendations for change and clarification and prepare drafts of the text of the 1993 SNA, Rev. 1., according to the project schedule.
- Carry through the preparations of the 1993 SNA, Rev. 1. to the camera-ready copy (or its equivalent).

b. Liaison

- Participate with the ISWGNA: National Accountants in technical discussions as needed.
- Participate in AEG meetings and participate in other technical considerations, including with a view to consulting with authors of substantive reports of the expert groups.

c. Technical matters

- With the Project Manager, provide oversight of the overall consistency of the SNA, Rev. 1, and of the harmony with other macroeconomic statistical standards.
- Catalogue the changes that may be needed to the various existing handbooks, compilation guides, and satellite accounts manuals that arise from the update.

The ISWGNA: National Accountants collectively sponsor and facilitate the technical consultations. These consultations are at the heart of the project. This group has the following tasks and responsibilities:

a. Output

- In consultation with the AEG, consider the proposals for change and take decisions on the scope of the updating and on technical issues.
- Circulate decisions to countries and/or regional and other expert meetings for discussion.
- In consultation with the AEG, consider the response to proposed changes from countries and/or regional and other expert meetings.

b. Liaison

with the Editor and with both the AEG and the existing expert groups, including to assess and evaluate the internal consistency of the 1993 SNA, Rev. 1 and the harmony with other macroeconomic statistical standards.

The AEG⁶ has been positioned to have a key role in carrying out the project in a transparent way and in ensuring that it is a worldwide undertaking. The group considers the proposals for change of the *1993 SNA* and expresses views. Issues come to the AEG from various existing expert groups – for example, the Canberra II group on non-financial assets, regional meetings, electronic discussion groups, and the IMF Balance of Payments Statistics Committee. Each expert group has terms of reference, a deadline, and a designated moderator to monitor discussions and write conclusions to be submitted to the AEG.

The secretariat of the ISWGNA has been established permanently at the UN Statistical Division. In these governance arrangements, it is the main source of logistical and administrative support for the project, and the Project Manager provides guidance for this support. Among the tasks that the Secretariat undertakes are the following:

- a. Maintenance of the project website.
- b. Preparation of project correspondence with the Statistical Commission members and national statistical offices.
- c. Preparation of reports to the Statistical Commission on behalf of the ISWGNA.
- d. Logistical and other support to the Project Manager.

The World Bank provides support by managing the Trust Fund. Also in that capacity, among other tasks, it facilitates contractual arrangements for the Project Manager and Editor. It also provides some logistical and administrative support to the consultants, although other ISWGNA organisations may also provide some such support.

Countries have a key role to play in the SNA Update project and particular attention is being given by the ISWGNA to ensuring that countries are informed of progress with the project and have the opportunity to review and input into the substantive discussions. The ISWGNA is pleased with the high level of country engagement — including from industrial, emerging market, and developing countries — in the project.

Progress on the 1993 SNA update project was reviewed at the recent UN Statistical Commission meeting. The Commission commended the progress made during the issues-oriented phase, and acknowledged the focused contributions and expertise by a wide range of countries and organisations to the work during this phase. It also expressed confidence in the ISWGNA in maintaining the momentum during the drafting and review phase of the update

6 The AEG members have been selected on the basis of their professional expertise. They do not represent the institutions they work for, nor their countries. They originate from Australia, Brazil, Canada, Costa Rica, the Czech Republic, Denmark, Ethiopia, France, Germany, India, Jordan, Lithuania, Malaysia, Netherlands, Philippines, the Russian Federation, South Africa, Trinidad and Tobago, the United Kingdom, and the United States.

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process in 2006 and 2007. The meeting attributed the commendable progress to the project management approach adopted and the extensive use of a transparent interactive website, and recommended this approach and technology in similar statistical projects and programmes. The Commission also recognised the need for an adequate response to requests from member countries for assistance in capacity building for the implementation of the 1993 SNA, Rev.1, and accepted the proposal by the ISWGNA to prepare an implementation programme to be available to the Statistical Commission at its meeting in March 2008.

2.3 Balance of Payments/International Investment Position

The measurement of external transactions and positions of member countries is central to achieving the purpose for which the IMF was established as laid out in Article 1 of the Articles of Agreement. Such measurement is conducted within the context of IMF responsibility for the surveillance of countries' economic policies and the provision of financial assistance in support of adjustment measures to correct balance of payments disequilibria. The balance of payments data, including reserves (as well as GDP data), are used in the IMF quota calculations. Indeed, these statistics face a dual challenge of enhancing compatible statistical standards across countries, and ensuring a proper measurement of the cross-border transactions in the environment of financial integration. globalisation. international and increasing comprehensiveness of the international financial markets.

Consequently, the IMF Statistics Department has a compelling interest in developing and promulgating appropriate international guidelines for the compilation of sound and timely balance of payments and international investment position statistics. The first *Balance of Payments Manual* was published in 1948 and the first *Balance of Payments Yearbook* in 1949. Since then, the guidelines, which have evolved to meet changing economic circumstances and analytic requirements, have been embodied in successive editions of the IMF's *Balance of Payments Manual* that were published in 1950, 1961, 1977, and 1993 (the *Balance of Payments Manual*, fifth edition (BPM5)).

A key catalyst for developments over the past decade was the Godeaux report on international capital flows in 1992. This report was requested by the IMF Executive Board given concerns over the measurement of international capital flows, following their sharp growth during the 1980s. Among the key recommendations adopted by the Executive Board was the creation of the IMF Balance of Payments Statistics Committee (BOPCOM)⁸ to assist the Statistics Department in keeping pace with the statistical consequences of the changing international financial environment. Godeaux saw an important need to set up an effective follow-up mechanism and, over recent years, BOPCOM has been

⁷ Report on the Measurement of International Capital Flows (Godeaux Report), IMF, 1992.

⁸ BOPCOM is chaired by the Director, IMF Statistics Department and comprises balance of payments experts from 13 countries, together with representatives of the BIS, the ECB, Eurostat, the OECD, and the UN Statistics Division. The IMF Statistics Department provides secretariat support to the Committee.

central to developments in balance of payments and international investment position data at the international level. BOPCOM has promoted the implementation of *BPM5*, oversighted a coordinated portfolio investment survey (discussed below), developed methodology for financial derivatives, undertaken a survey of direct investment practices, and generally kept the IMF Statistics Department abreast of financial developments that can impact on the balance of payments and international investment position. There has also been work on various current account issues, such as recent work on remittances informed by the participation of the IMF Statistics Department in the work of the Technical Sub-Group on Movement of Natural Persons, cooperation with the Center for Latin American Monetary Studies in its initiative to improve remittances statistics in Latin American countries, as well as collaboration with Eurostat, the World Bank, and IMF member countries in forming the relevant City Group ("Luxembourg Group").

BOPCOM annually monitors the reporting by member countries of balance of payments data using *BPM5*. Over the years, the take-up has been strong. For the 2005 *Balance of Payments Yearbook*, 162 countries reported balance of payments data using the coding system of *BPM5*, 106 countries reported quarterly balance of payments statistics to the IMF, and over 100 countries reported international investment position data, most comprehensive, some partial. To enhance accuracy of the reported data, the BOPCOM annually monitors and analyses trends in global discrepancies of the reported balance of payments data, augmented by the results of the IMF Survey on the Instrument Composition of the Foreign Exchange Reserves. The *Balance of Payments Compilation Guide* released in 1995, the *Balance of Payments Textbook* released in 1996, together with extensive technical assistance activity by the IMF Statistics Department supported the implementation of *BPM5*.

The rapidly changing globalisation and increased financial innovation triggered the revision of the *Balance of Payments Manual*, in parallel with the revision of the *1993 SNA*. These two revision processes are interrelated and inform each other via continuing contact that is maintained between the BOPCOM and the ISWGNA and the AEG.

In the new manual the overall structure of the international accounts will be essentially unchanged from that of *BPM5*. Nonetheless, the new manual is to increase the emphasis on the international investment position and show it fully interlinked with transactions and other flows, because of the growing importance of the balance sheet in IMF surveillance work. Also, the manual intends to take account of financial innovations that engender new types of financial assets and liabilities and the increase in the growth in financial services; and it is to clarify selected areas (e.g. scope of direct investment and services). It will also incorporate much of the new methodological work developed since 1993 as globalisation has progressed. This includes the work on services (*Manual on Statistics of International Trade in Services*), on external debt (*External Debt Statistics: Guide for Compilers and Users*), and on international reserves (*International Reserves and Foreign Currency Liquidity: Guidelines for a Data*)

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Template), as well as taking into account other manuals such as the Monetary and Financial Statistics Manual 2000 and the Government Finance Statistics Manual 2001.

In the *BPM5* update, the IMF Statistics Department is playing the central role through BOPCOM. Proposals for change have to come to BOPCOM, be it from the technical expert groups⁹ it created to advise it, or other sources, such as the Interagency Task Force on Statistics of International Trade in Services and the Interagency Task Force on Finance Statistics, as well as through the contribution of interagency partners¹⁰. Also, BOPCOM will review all draft chapters before their posting for public comment. The intention is that at its annual meeting in October 2008 BOPCOM will approve the final draft of the new manual. In undertaking its work, BOPCOM is taking due account of decisions made in the context of the revision of the SNA in order to ensure consistency between the national accounts and the balance of payments.

Countries are also central to the update of *BPM5*. In addition to those countries that have members on BOPCOM, other countries have participated in the work of the four technical expert groups. In addition, as with the annotated outline that set the update in motion, the draft chapters of the manual are to be sent to member countries for their comment. The papers relating to the work of the update are posted on the Fund's external website, 11 allowing for public comment.

2.4 Monetary and Financial Statistics

Monetary statistics comprise a comprehensive set of stock and flow data on the financial and non-financial assets and liabilities of an economy's financial corporations sector. The basic framework is the sectoral balance sheet, which contains the highly disaggregated stock and flow data for all categories of assets and liabilities of an individual sub-sector within the financial corporations sector. The presentational framework is the survey, in which the data from the sectoral balance sheets of one or more of the financial corporations sub-sectors are combined into more aggregated asset and liability categories that are particularly useful for analytical purposes. Three surveys cover the individual financial corporations sub-sectors - the Central Bank Survey, Other Depository Corporations Survey, and Other Financial Corporations Survey. The fourth survey - the Depository Corporations Survey - contains the consolidated data for the central bank and the other depository corporations. The fifth and broadest survey - the Financial Corporations Survey - contains the consolidated data for depository corporations and other financial corporations, thereby covering the entire financial sector of an economy. The monetary statistics also include data on monetary aggregates and their components.

- 9 The four technical expert groups (TEG) are: Balance of Payments TEG, Direct Investment TEG, Currency Union TEG, and Reserve Assets TEG. Membership of the groups comprises representatives from selected IMF member countries from all regions of the world and international organisations.
- 10 Collaborative work in the OECD's Benchmark Advisory Group, and the Workshop on International Investment Statistics.
- 11 http://www.imf.org/.

Financial statistics comprise a comprehensive set of stock and flow data on the financial assets and liabilities of all sectors of an economy. The financial statistics are organised and presented in formats designed to show financial positions and flows among all economic sectors and between these sectors and non-residents. The financial statistics are synonymous with the financial asset and liability accounts in the 1993 SNA, including the flow-of-funds accounts — a matrix presentation of the financial transactions among all sub-sectors of an economy.

For six decades, the IMF has been providing guidance on the compilation and reporting of monetary statistics for member countries. This guidance began in the lead-up to the publication of the inaugural issue of *International Financial Statistics (IFS)* in January 1948 and has continued to the present day. The focus through time has been on compilation and reporting of balance-sheet data (end-of-month stocks) for the central bank and other depository corporations in each country.

Expertise accumulated over three and a half decades of IMF technical assistance in monetary statistics was documented in *A Guide to Money and Banking Statistics in International Financial Statistics* (December 1984) – a draft manual that, though widely circulated to IMF member countries, was never officially published. The scope of the 1984 guide was limited exclusively to the compilation of stock data for depository corporations – the central bank and other depository corporations – as reported for the country pages in *IFS*.

The Monetary and Financial Statistics Manual 2000 (MFSM) is the first publication to provide official guidance on the methodology for the monetary statistics for all member countries. The Compilation Guide for Monetary and Financial Statistics (Guide; forthcoming 2006) contains more detailed treatment of the topics covered in the MFSM, focusing on special cases of asset/liability classification and practical approaches to asset valuation and application of the other accounting rules. The methodology in the MFSM and the Guide is harmonised with the definitions, accounting principles, and other concepts in the 1993 SNA. Guidance on the financial statistics is provided in the context of the Financial Account, Other Changes in Assets Account, and flow-of-funds accounts in the 1993 SNA. The MFSM and Guide focus on practical approaches to data collection and compilation and the presentation of financial statistics in the form of both stock and flow data.

Development of the *MFSM* and the *Guide* entailed the following steps for each publication:

- a. drafting of an annotated outline;
- b. finalisation of the outline after bilateral consultations with officials in international and regional organisations and selected member countries;
- c. drafting of the publication;

- d. convening of an expert group meeting composed of 30-40 officials from international and regional organisations and selected member countries;
- e. final drafting of the publication, incorporating the recommendations from the expert group meeting; and
- f. final editing, index preparation, and publication.

A major step in the implementation of the methodology in the *MFSM* and the *Guide* has been the introduction of standardised report forms (SRFs) for countries' transmittal of monetary data for publication in *IFS* and for operational purposes of the IMF. The SRFs, which are designed for the reporting of stock data only, are being implemented in all member countries except those that belong to currency unions and for which their data are transmitted to the IMF by the head offices of the currency unions.

For decades, member countries have reported monetary data in a variety of country-specific formats. Implementation of the SRFs will result in efficiency gains in data compilation and reporting and improvements in data quality and, in particular, will lead to much greater cross-country comparability of the monetary statistics.

2.5 Government Finance Statistics

The Government Finance Statistics Manual 2001 (GFSM 2001), provides a framework for fiscal analysis based on accrual accounting principles and a fully integrated system of stocks and flows. The GFSM 2001 is harmonised with the 1993 SNA, and presents a number of significant advances with regard to A Manual on Government Finance Statistics 1986 (GFSM 1986). Three of these advances are: (a) the recording of all flows and stocks associated with institutional units of the general government or public sector; (b) the use of both a cash and an accrual basis of recording; and (c) the use of a set of four financial statements that include a number of balancing items, and provide a uniform presentation for all countries.

The GFSM 2001 was developed over a six-year period. The process involved close consultation with experts in the IMF, member countries, and international organisations. The primary author of the manual was an IMF consultant. Close collaboration between the IMF's Statistics and Fiscal Affairs Departments throughout the drafting of the manual enhanced the soundness of its framework and its usefulness for fiscal analysis. Key milestones in the development of the manual were (a) an internal paper in October 1995 that gave shape to the new system; (b) a July 1996 IMF working paper "The Case for Accrual Recording in the IMF's Government Finance Statistics System"; (c) an August 1996 Government Finance Statistics: Annotated Outline, widely commented on by countries; (d) a first draft of the manual in late 1997; (e) successive rounds of review and redrafting; and (f) a February 2001 meeting of government finance statistics experts to review the document. The manual is currently available in Arabic, Chinese, English, French, Spanish, and Russian languages.

The data reported in the IMF's *Government Finance Statistics Yearbook (GFS Yearbook)* have been presented on the basis of the *GFSM 2001* framework since 2003. Notable progress has been achieved in having countries compile and report data using the new framework. In 2003, of the 74 countries that submitted data, only one-third used the *GFSM 2001* format. However, in 2005, 91% of all reporters (90 countries) compiled data using the *GFSM 2001* framework.

Implementation of the GFSM 2001 involves three distinct sets of actions that can be initiated simultaneously but, depending on the relative complexities involved, will be accomplished with different time horizons. These actions are: (a) the re-presentation of the data, in accordance with the GFSM 2001 classification structure (near term); (b) data reporting, in accordance with the new structure, by countries (medium term); and (c) full implementation of accrual reporting and the associated underlying systems (long term). The adoption of the GFSM 2001 presentational format is the simplest of the actions and is affected by few impediments. It essentially involves reclassifying existing fiscal data in the appropriate analytical framework. Compiling government finance statistics according to the GFSM 2001 poses more of a challenge and could be constrained by a lack of statistical capacity in countries. Close collaboration between the national authorities and IMF staff will be required to develop this capacity through training and technical assistance, and this could involve considerable time. Full implementation of GFSM 2001 is only achieved with the introduction of an accounting system that is based on accrual reporting and a modern public expenditure management framework, which provides assurance that the government accounting and classification systems are capable of supporting statistical reporting that is GFSM 2001 compliant. Accomplishing this action is a major task for most countries, requiring careful planning and management to avoid disrupting the flow of fiscal statistics. To effectively manage the constraints to implementation at every stage, countries will need to develop an approach to implementing GFSM 2001 that is tailored to institutional capacity.

Late in 2005, IMF staff prepared a paper on "Using the GFSM 2001 Statistical Framework to Strengthen Fiscal Analysis" that responded to the call from the IMF Executive Board for greater consistency in fiscal reporting. Staff demonstrated how the comprehensive analytical framework of *GFSM 2001* could be used to strengthen fiscal analysis and reporting in the IMF surveillance and programme work through three summary fiscal tables – the operating statement, the balance sheet, and the cash statement – and the core indicators that can be derived from these tables.

Executive Directors noted that, by relying on a framework that integrates stocks and flows and includes the presentation of balance sheets, the *GFSM 2001* framework will lead to greater transparency and consistency in the presentation of country fiscal data in staff reports. They welcomed the enhanced ability that the *GFSM 2001* provides to record non-cash transactions in a coherent and consistent manner, while still recognising the importance of compiling data on the government's operations on a cash basis for purposes of liquidity management. Moreover, they acknowledged that the *GFSM 2001* is an

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appropriate framework for handling new and complex fiscal operations and for conducting fiscal sustainability analysis.

To facilitate implementation of the *GFSM 2001* framework in the IMF's operational work, Executive Directors agreed that IMF staff should move in a phased way to analysing fiscal data using the *GFSM 2001* framework. To this end, Directors supported the staff's proposal to conduct pilot studies to include the three summary fiscal tables in the staff reports for Article IV consultation reports. These pilot studies will be done for volunteer countries, over a two-year period, to map out more fully the process involved in shifting to the *GFSM 2001*.

2.6 External and Public Debt Statistics

In the wake of the financial crises in the late 1990s, the Task Force on Finance Statistics (TFFS), first established under the auspices of the UN Statistical Commission in 1992, was reconvened in 1998 to improve the availability of external debt statistics in particular. The task force includes all those international agencies with a direct interest in external debt statistics.¹² Through its work and that of its constituent agencies, there has also been a remarkable improvement in the amount of external debt data available. The World Bank hosts a Quarterly External Debt Statistics database (QEDS) where quarterly external debt position data, provided with a one-quarter lag, by most countries subscribing to the IMF's Special Data Dissemination Standard, are redisseminated, and the Joint Debt Statistics (JDS) Table – a joint product of the BIS, the IMF, the OECD, and the World Bank – provides available quarterly creditor/market based data for around 175 countries worldwide. The TFFS produced the External Debt Statistics: Guide for Compilers and Users, 2001 (Debt Guide) to support the work of compiling external debt statistics and it is now widely used, not least by UNCTAD and the Commonwealth Secretariat, which provide debt monitoring systems to countries worldwide.

The sub-group of the TFFS, involving the BIS, the IMF, the OECD, and the World Bank, has recently jointly launched a new website – the Joint External Debt Hub (JEDH) – to provide a one-stop source of comprehensive external debt statistics compiled from national and creditor/market sources. It is located at www.jedh.org. By providing timely and frequent access to external debt statistics, the website facilitates macroeconomic analysis, and cross-country and data source comparisons. The JEDH includes a revised JDS table as well as national external debt data from the World Bank's QEDS database. The JEDH replaces the existing creditor-sourced JDS data available at www.oecd.org/statistics/jointdebt, which will be discontinued in due course. Using national data on external debt disseminated on the World Bank's QEDS database and creditor/market data on external debt, the JEDH also compares for each participating country in the QEDS, data on loans, debt securities, and trade credits, from both the national and creditor/market viewpoints.

¹² Membership of the Task Force comprises the BIS, the Commonwealth Secretariat, the ECB, Eurostat, the IMF (chair), the OECD, Paris Club Secretariat, UNCTAD, and the World Bank.

In contrast to the substantial efforts that have been made to strengthen external debt statistics, collection of public debt data has remained ad hoc and based on varying methodologies. While most IMF Article IV reports provide information on the level of public debt, its definition is rarely clear. Furthermore, this definition varies significantly across countries; there is often no breakdown into main debt components; and the data often differ from those reported in the authorities' publications or the IMF's *Government Finance Statistics Yearbook (GFSY)*. In contrast to external debt data, there is no standard reporting format (and no guidance to IMF staff) for public debt data other than the general guidance in the *GFSM 2001*. While the *GFSM 2001* framework prescribes the breakdown of assets and liabilities by residency and instrument, it needs to be supplemented with information on currency composition and maturity for comprehensive analysis of debt statistics. These shortcomings make meaningful analysis, including stress testing and cross-country comparisons difficult.

Under the auspices of the TFFS, the IMF has developed a public-sector debt template that is currently being piloted in a select group of countries. The framework of this template is designed to cover all institutional units within the public sector and requires data to be reported for domestic and external debt. The main objectives of the public-sector debt template can be summarised as follows:

- a. strengthening the statistical basis for vulnerability and debt sustainability analysis by enhancing the availability and quality of data on public debt, including composition by currency, maturity structure, residency, and instrument classification, as well as debt service;
- b. enhancing cross-country comparability by promoting a standard for reporting public debt data that is consistent with internationally accepted methodologies, including *GFSM 2001*;
- c. improving information on contingent liabilities and non-government public debt; and
- d. strengthening fiscal sustainability and balance sheet analysis by moving towards the compilation of a full integrated balance sheet for the consolidated public sector.

A greater participation in this initiative by member countries on a voluntary basis is expected during the next two years. The public-sector debt template, as well as general guidelines for reporting data, are available on the IMF's website at http://www.imf.org/external/pubs/ft/gfs/manual/comp.htm.

3 DATA DISSEMINATION STANDARDS

The IMF's work on data dissemination standards began in October 1995, in the aftermath of the Mexican financial crisis, when the Interim Committee (now the International Monetary and Financial Committee) endorsed the establishment

by the IMF of standards to guide members in the dissemination to the public of their economic and financial data. The standards were to consist of two tiers: the Special Data Dissemination Standard (SDDS) to guide countries that have, or that might seek, access to international capital markets, and the General Data Dissemination System (GDDS) to assist all other member countries. The SDDS was approved by the IMF Executive Board in March 1996, and the GDDS in December 1997, in both cases following extensive consultation with member countries.

Following the Asian financial crisis in the late 1990s, the importance of a country's dissemination of comprehensive information on its external position was widely recognised. The IMF responded by extending the SDDS to the dissemination of the international investment position data and expanding the SDDS to include the *Data Template on International Reserves and Foreign Currency Liquidity (Reserves Template)* and a new external debt data category. The implementation of the *Reserves Template* carried a transition period of one year.

Recent empirical work¹³ has found negative correlations between subscription to the SDDS and participation in the GDDS and spreads in interest rates on government securities. For SDDS subscribers in emerging markets, this narrowing of the spread between industrial country bond rates and national bond rates for similar maturities can reach 50 basis points. There is a somewhat lower benefit for participants in the GDDS, consistent with the fact that the requirements of the SDDS, the monitored standard, are significantly more stringent than those of the GDDS, the developmental system. This supports the proposition that capital markets value the commitment to data transparency that countries show when they participate in the IMF data standards initiatives. These results suggest that a founding motivation for the data standards – to facilitate countries' access to international capital markets through a commitment to transparency – is coming to fruition.

3.1 The Special Data Dissemination Standard

The Special Data Dissemination Standard (SDDS) considers four dimensions of data dissemination: (a) the data (coverage, periodicity, and timeliness), (b) access by the public, (c) integrity of the disseminated data, and (d) quality of the disseminated data. For each of these dimensions, the SDDS prescribes two to four monitorable elements – good practices that can be observed, or monitored, by the users of statistics.

The data dimension lists 18 data categories that provide coverage for the four sectors of the economy, and it prescribes the periodicity (or frequency) and timeliness with which data for these categories are to be disseminated. In recognition of differences in economic structures and institutional arrangements across countries, the SDDS provides flexibility. Certain categories are marked

¹³ John Cady and Anthony Pellechio, "Sovereign Borrowing Cost and the IMF's Data Standards Initiatives", IMF Working Paper 06/78, March 2006.

for dissemination on an "as relevant" basis. Further, some data categories or components of data categories are identified as "encouraged" rather than "prescribed." With respect to periodicity and timeliness, a subscribing member may exercise certain flexibility options while being considered in full observance of the SDDS.

The monitorable elements of the SDDS for access, integrity, and quality emphasise transparency in the compilation and dissemination of statistics:

- a. To support ready and equal access, the SDDS prescribes:
 - advance dissemination of release calendars; and
 - simultaneous release to all interested parties.
- b. To assist users in assessing the integrity of the data disseminated under the SDDS, the standard requires:
 - the dissemination of the terms and conditions under which official statistics are produced and disseminated;
 - the identification of internal government access to data before release;
 - the identification of ministerial commentary on the occasion of statistical release; and
 - the provision of information about revision and advance notice of major changes in methodology.
- c. To assist users in assessing data quality, the SDDS requires:
 - the dissemination of documentation on statistical methodology; and
 - the dissemination of component detail, reconciliations with related data, and statistical frameworks that make possible cross-checks and checks of reasonableness.

A subscriber is expected to submit information about its data and its dissemination practices – its metadata – to the IMF for presentation on the IMF's Dissemination Standards Bulletin Board (DSBB) on the IMF's website. Subscribers' metadata are reviewed by the IMF for comprehensiveness and international comparability. The responsibility for the accuracy of the metadata, including timely updates, and for the economic and financial data underlying the metadata rests with the subscriber. In addition, subscribers are required to certify the accuracy of all metadata posted on the DSBB on a quarterly basis. Metadata certification is required three days after the end of the quarter.

The DSBB is maintained by the IMF. SDDS metadata provide insights into the usefulness and limitations of the published data. Their presentation on the DSBB

facilitates monitoring of observance of the standard by IMF staff, the financial markets and other data users. The DSBB provides hyperlinks between the SDDS metadata and actual country data shown in the national summary data page for all subscribers.

A member country's presence on the DSBB as a subscriber to the SDDS indicates its intention to observe certain tenets of good statistical citizenship. Serious and persistent non-observance of the SDDS will be cause for action. Procedures to be followed in instances of such non-observance have been approved by the IMF Executive Board.

As of early April 2006, there were 62 countries or territories subscribing to the SDDS. Members of the OECD are well-represented, but the SDDS subscriber base is making steady inroads in all parts of the world. Notwithstanding the flexibility options built into the SDDS, its requirements are considered quite stringent. The most demanding SDDS requirements for countries considering subscribing are dissemination of:

- quarterly national accounts with one quarter timeliness;
- monthly central government operations with one month timeliness, especially data on deficit financing or accumulation of financial assets under a surplus, and annual operations and financing for general government or the public sector;¹⁴
- monthly information on the data template for international reserves and foreign currency liquidity with one month timeliness (and one week timeliness for the official reserve assets components of the reserves template); and
- quarterly external debt statistics.

The SDDS has matured since its inception in 1996 with the addition of the reserves template at the conclusion of its Second Review in March 1999 and the external debt category at its Third Review in March 2000. Care needs to be given to ensuring that the SDDS is not seen as a moving target for aspiring subscribers, and the Fourth through Sixth Reviews have added no new categories to the SDDS. However, the Sixth Review in November 2005 noted the prospect for considering at the Seventh Review, in late 2008, whether financial soundness indicators should be added to the SDDS.

14 The Government Finance Statistics Manual 2001 (GFSM 2001) standard for government operations statistics is still seen as a challenge for most countries, including many SDDS subscribers. In particular the closely specified scope requirements for central and general government and its accrual accounting aspects are seen as challenging. The SDDS does not require GFSM 2001 compliance, but strongly encourages subscribers to adopt the methodology. In this context, the standard provides a special timeliness flexibility option for countries following GFSM 2001 and publishing general government statistics at quarterly frequency.

3.2 The General Data Dissemination System

The General Data Dissemination System (GDDS) provides its participating countries and territories (84 as of early April 2006) with a basic framework for statistical development. The GDDS addresses the full range of issues critical for compiling and disseminating data and making explicit plans for aligning and resourcing national statistical procedures with best practices. As in the SDDS, four dimensions of data compilation and dissemination are covered in the GDDS framework: (a) the data (coverage, periodicity, and timeliness); (b) access by the public; (c) integrity of the disseminated data; and (d) quality of the disseminated data. The GDDS has been aligned to incorporate relevant UN Millennium Development Goal (MDG) indicators within its framework.

The GDDS calls for the national authorities to set their own priorities and timing to develop their statistical systems. It allows the data-producing agencies to take control of their statistical development programmes in a structured manner and to coordinate effectively among producing agencies, users, and the international community. The IMF supports these efforts by providing technical assistance and by catalysing support from other sources.

In participating in the GDDS, member countries prepare metadata on their current statistical practices, develop their plans for improvement in the short and medium term, and identify associated needs for assistance in implementing these plans. Participating countries must update (at least annually) and revise their metadata to describe how their data compilation and dissemination activities are keeping pace with the best statistical practices. The DSBB also disseminates metadata of GDDS participating countries. The GDDS thus is an instrument for planning, executing, and tracking progress in building a country's statistical capacity, including its data dissemination activities. Among other things, an end result of a GDDS statistical capacity building project would be the ability to meet the requirements for SDDS subscription.

Recent enhancements to the framework for the GDDS plans for improvement make it a useful project and public expenditure management tool for statistics. The IMF is piloting the enhanced GDDS plans for improvement in countries considering multiyear statistical improvement projects, including, for example, countries joining a currency union and harmonising an existing statistical base, as well as countries building statistical capacity as part of a poverty reduction strategy. The Partnership in Statistics for the 21st Century (PARIS21) has incorporated the GDDS framework into its guidelines for national statistical development plans.

4 DATA QUALITY FRAMEWORKS AND ASSESSMENTS

4.1 The Data Quality Assessment Framework

The IMF Statistics Department works with member countries in their development of overall strategies and action plans for the enhancement of data

quality. In connection with this intensified effort to improve data quality, the Statistics Department uses the Data Quality Assessment Framework (DQAF) that it has developed, in consultation with member countries, as a tool to provide a systematic approach to assessing data quality. Documentation is available on the Data Quality Reference Site (DQRS) on the DSBB (http://dsbb.imf.org).

The DQAF brings together a structure and common language for best practices and internationally accepted concepts and definitions in statistics, including those of the United Nations *Fundamental Principles of Official Statistics* and the SDDS/GDDS. The intent is to keep the framework current in reflecting best statistical practices as they evolve. During the second half of 2003, the IMF and Eurostat conducted a joint review of their respective approaches to data quality. That review highlighted that the DQAF provides a holistic approach by taking into account the governance of statistical systems, core statistical processes, and statistical products, while Eurostat's approach places greater emphasis on statistical outputs. The review, which further harmonised the two approaches, was considered at the 2004 United Nations Statistical Commission and is available on the DQRS.

The DQAF can be used by national producers of official statistics as a management tool to monitor data quality, by international organisations for their own assessment of countries' data quality, and by other data users, including those in the private sector. Because of its comprehensive structure, the DQAF has proven to be versatile in applications beyond data quality work. It is also used as both a forward-looking framework in the design of new IMF technical assistance programmes and for monitoring progress in post-mission work by the national authorities and by follow-up programmes and projects. The DQAF has also been adopted as a framework for the PARIS21 statistical capacity-building indicators to promote a common understanding of data quality.

One area in which the DQAF is making a difference is in integrating the IMF data standards with its data quality assessment (see Section 5 below) and technical assistance activities. The IMF currently is reorganising the detailed structure of the SDDS and GDDS to conform with the DQAF at its "indicator" (three-digit) level of detail, allowing direct comparisons with the IMF's quality assessments discussed below. The IMF's Technical Assistance Information Management System also organises assistance to member countries around the DQAF, allowing the SDDS and GDDS metadata to track progress in statistical capacity resulting from technical assistance. Finally, as noted in Section 3.2 above, the DQAF plays an important role in enhancing the GDDS plans for improvement, not only through linkages to the IMF's quality assessment work and technical assistance, but also by providing a credible work breakdown structure for statistical project management. The DQAF thus is playing a symbiotic role among the IMF's data standards, quality assessment, and technical assistance activities, welding the three areas into a whole greater than the sum of its parts.

4.2 Data Module Reviews of Standards and Codes

The joint World Bank-IMF standards and codes initiative (Report on the Observance of Standards and Codes (ROSCs)) was launched in 1999 as a prominent component of efforts to strengthen the international financial architecture. The initiative was designed to promote greater financial stability, at both the domestic and international levels, through the development, dissemination, adoption, and implementation of international standards and codes. Its three intermediate objectives were to assist countries in making progress in strengthening their economic institutions; to inform World Bank and IMF work; and to inform market participants. The initiative covers 12 areas and associated standards, which the World Bank and IMF Boards recognised as relevant for their work. These standards relate to data and policy transparency, financial sector regulation and supervision, and market integrity.

As of April 2006, 724 reports were completed in 130 countries, thus covering 70% of the IMF's membership. Participation, which is voluntary, in general has been high for emerging market countries and advanced economies, and somewhat lower for developing countries. Regional participation is somewhat uneven, with participation highest in Europe, including Eastern Europe, and lowest for East Asia and Sub-Saharan Africa. There is some evidence of "self-selection", with best performers more willing to participate than poor performers. The publication rate of ROSCs has been stable at about 75% and the highest publication rates are for advanced economies and for fiscal and data standards reports.

Data module ROSCs typically cover assessments of a country's national accounts, balance of payments, prices (consumer and producer price indices), monetary and financial statistics, and government finance statistics. As of end-March 2006, a total of 91 data module ROSCs have been published for 82 countries, covering about 45% of IMF membership. More than half of these have been for countries that subscribe to the SDDS. In terms of the regional distribution, using the IMF's area department grouping, Europe leads with about 30% of total data ROSCs, Africa (20%), Asia (18%), Middle East/Central Asia (12%) and Western Hemisphere (20%).

The ratings contained in the data module ROSC can assess the extent to which a country needs to move forward to reach the international standard or best practice. For example, assessments for national accounts statistics and government finance statistics consistently show the greatest need for improvement. Industrial economies generally fare better than emerging countries, but not always. Weaknesses identified in the assessments are most useful to the country authorities in their efforts to strengthen capacity building. The assessments provide an in-depth analysis of a country's statistical system, based on the DQAF. Country authorities point to the high value of the in-depth consultative process of preparing the data module ROSC which includes extensive preparatory work, in many instances a self-assessment, a two-week visit of the country by experts in macroeconomic statistics, and a survey of users. They also point to the action plan or list of recommendations at the end

of the report as a particularly useful feature in summarising key weaknesses and ways to address them. Detailed responses by the authorities are published along with data module ROSC assessments.

Following a review in mid-2005, the IMF is adjusting the prioritisation and country coverage of its ROSCs. Future ROSC programmes will be more selective and more focused. Given the initiative's origin, the review suggested that the initiative appears to have had the most beneficial impact for emerging market countries. This may be attributed to the relevance of the initiative's standards for these countries, given their level of financial development, which contrasts with the situation of most developing countries. Going forward, the IMF's medium-term strategy notes that the overall ROSC programme will be curtailed, but this is unlikely to affect the coverage of emerging countries. At the same time, there will be somewhat more emphasis on more frequent updates, responding in particular to the needs of market participants.

5 COORDINATED COMPILATION EXERCISES

5.1 Financial Soundness Indicators

Turmoil in the international financial markets in the late 1990s underscored the need for better tools to monitor financial risks and vulnerabilities, including the need for timely and cross-country comparable data on the soundness of financial systems. The IMF had been called upon by the International Monetary and Financial Committee and the Group of Seven (G7) to strengthen its assessment of financial system soundness as part of its surveillance function. The development of Financial Soundness Indicators (FSIs) was a response to this call.

In June 2001, the IMF Executive Board endorsed a core and an encouraged set of FSIs. The core set (comprising 15 indicators for deposit-taking institutions or banks), represents indicators that are analytically significant, useful as revealed by the responses to a survey of IMF member countries undertaken in 2000, relevant in most circumstances, and generally available. The encouraged set includes additional indicators for banks as well as data on other sectors and markets that are relevant in assessing financial sector vulnerabilities. The Executive Board called for the preparation of a compilation guide to serve as a standard reference covering the concepts and definitions, data sources, and compilation techniques for the core and encouraged FSIs.

The Compilation Guide for Financial Soundness Indicators (Guide) was disseminated (in paper copy and on the IMF's website) in July 2004 following extensive consultation with experts from international agencies, standard-setting bodies, and IMF member countries. The Guide aims to support country efforts towards more widespread compilation and dissemination of financial soundness indicators (FSIs). It provides a conceptual framework focused on income and expense and balance sheet statements that promotes a coherent approach to the

classification and coverage of transactions and positions to derive internally consistent data series for use in calculating FSIs.

Following the finalisation of the *Guide*, the Coordinated Compilation Exercise (CCE) for FSIs was launched in November 2004. The objectives of the CCE are to (a) develop the capacity of member countries to compile FSIs, (b) promote cross-country comparability of FSIs, and (c) disseminate FSI data and metadata produced under the CCE to increase transparency and strengthen market discipline. Countries participating in the CCE will compile at least the core FSIs (as of reference date December 2005) and prepare metadata, and provide them to the IMF for publication by the end of 2006.

Some 62 countries volunteered to participate in the CCE.¹⁵ These are systemically important countries that had participated in the IMF-World Bank's Financial Sector Assessment Program (or FSAPs) and/or are subscribers (or close to subscribing) to the SDDS.¹⁶

The implementation of the CCE is on track. Coordinators and compilers of FSIs from participating countries met in Washington DC in November 2004 to discuss the terms of reference, work programme, and timetable of actions. The second round of regional meetings between participating countries and IMF staff is currently in progress.¹⁷ At present, most countries have completed or are close to completing their second draft of FSI metadata, as well as their preliminary FSI data. The CCE experience will provide important inputs to the IMF's future work on FSIs, which is scheduled for discussion by the Executive Board in 2007.

5.2 Coordinated Portfolio Investment Survey

The Coordinated Portfolio Investment Survey (CPIS), which is coordinated by the IMF Statistics Department, is an international survey of holdings of portfolio investment assets (i.e. foreign equities and short and long-term debt securities). The first CPIS was conducted in respect of 1997, in which 29 countries participated. The CPIS was initially launched in view of large apparent discrepancies in statistics on global portfolio capital flows. Since 2001, the survey has been undertaken annually, with country participation reaching 70 in respect of the 2004 survey. In addition, to ensure a full scope of the requested information, two adjacent surveys are conducted annually, the Survey of Geographical Distribution of Securities Held as Foreign Exchange Reserves (SEFER), and the Survey of Geographical Distribution of Securities Held by International Organisations (SSIO).

The CPIS has helped countries improve their data on portfolio investment assets in the framework of international investment position statistics and has provided

¹⁵ A Reference Group, comprising representatives of international and regional institutions, as well as of international standard setting bodies, is assisting the IMF in the promotion and support of the CCE.

¹⁶ All member countries of the European Union are participating in the CCE.

¹⁷ The first round of regional meetings was held in mid-2005.

a wealth of information to countries and other users of statistics on the geographical distribution of the stock of portfolio investment capital. These creditor-based data also provide a database that counterpart debtor countries may use to construct estimates of their outstanding cross-border liabilities in the form of equities and debt securities. Timely information on portfolio investment liabilities is proving to be especially important in the current dialogue on global external imbalances.

Globalisation has raised demands among policy-makers and other users of statistics for more complete and comparable data on foreign direct investment. Following on the success of the CPIS, the IMF Statistics Department launched, in 2004, a feasibility study as a precursor to a possible Coordinated Direct Investment Survey. An outreach to countries in 2005 showed a very high level of support for such a survey, which could be modelled on the CPIS. The feasibility study is in the final stages of completion and if a decision is taken to launch an internationally coordinated survey of direct investment positions, it would be in respect of an end-2009 reference year.

5.3 International Comparison Program

The International Comparison Program (ICP) produces internationally consistent price and quantity comparisons across countries and regions for many of the components of, and the total of, gross domestic product (GDP) built up from detailed prices and expenditures. GDP, which represents the total of final expenditures of a country during a year, has been the focus of the ICP because it is the single measure most often used to represent the total economic size of countries, and on a per-capita basis to represent the flow of goods and services available to countries to contribute to their economic well-being. The ICP generates its results on the basis of hundreds of item price comparisons for many detailed headings of expenditure on GDP.

The ICP is unique in that it requires both country statistical offices and regional and international agencies to split responsibilities in compiling and processing the basic price and expenditure data. It is also unique in that the quality of the ICP results for one country depends crucially not only on the quality of the basic data for that country, but also on the quality of the basic data for all other countries in the comparison. Very strong coordination and collaboration is therefore necessary if the ICP is to be successful.

In the second half of the 1990s, three independent evaluations of ICP were conducted.¹⁸ The three evaluations shared common objectives: (a) to assess the demand for and the uses of purchasing power parity (PPP) data; (b) to identify weak areas of the programme; and (c) to recommend strategies to strengthen

18 The first report, prepared by Messrs Raimundo Fombellida and Seppo Varjonen (1996), focused on the African 1993 comparison. This was followed by the evaluation by Mr Ian Castles of the OECD programme (1997). The third evaluation, sponsored by the IMF, the UN Statistics Division, and the World Bank (1999), and conducted by Mr Jacob Ryten, United Nations Statistical Commission (E/CN.3/1999/8), had a broader mandate with respect to covering all regional comparisons.

it. The three independent reports agreed on most issues and all confirmed the value of PPP data – the estimation of which is the primary objective of the ICP – for a wide range of policy-relevant economic analyses.

The Ryten report observed that the most serious problem facing ICP was the lack of credibility of its outputs, particularly at the detailed level. Lack of credibility was linked to a "data breeding" problem, which included poor management and supervision of country-level data collection, data editing and processing, and the lack of coordination between national statistical offices and regional coordinators. These problems were, in turn, attributed to insufficient funding and the absence of a credible international coordinator.

In light of these reviews, proposals were developed for a major revamp of the ICP before its re-launch for a new round in respect of reference year 2005. Major attention was given to the governance structure for the ICP, the basic components being as follows:

- a. The ICP Council, with its broad representation of sponsors, users, donors and other stakeholders, to be the ultimate "owner" of the ICP, equivalent to the annual general meeting of shareholders in a corporation. Its main roles would be to provide a forum where the views of the stakeholders can be expressed, to confirm or otherwise amend the mandate and accountability mechanisms for the ICP Executive Board, and to ensure that the ICP has adequate resources.
- b. The ICP Executive Board, equivalent to the board of directors in the corporate model, to be responsible for the successful implementation of the ICP.
- c. The ICP Global Office, headed by the ICP Global Manager, to manage the ICP on a day-to-day basis. The position reports to the Executive Board and prepares annual work programmes and budgets for their approval. The Global Office is located within the World Bank in Washington DC.
- d. The Technical Advisory Group provides guidance on technical issues and monitors the use of appropriate methodology.
- e. Regional implementing agencies to be responsible for setting up the structures required to implement and monitor ICP at the regional level. Each regional agency has established a regional ICP office headed by a regional coordinator. Regional agencies have set up regional committees to maintain contact with participating countries.
- f. Within participating countries, the ICP is carried out by a national implementing agency, with a nominated national coordinator.

The ICP Executive Board subsequently agreed to a change in scope of the ICP Council from ultimate custodian of the programme to an information-sharing vehicle, allowing the ICP practitioners to provide progress reports to, and receive feedback from, a wide audience. Membership of the Council, which has not

yet been established, will encompass donors with academia, researchers, the media, and other users being invited to attend Council meetings. It is envisaged that communication with the Council will take place through a website interchange and occasional forums.

While the results of the current round of the ICP are not yet available, and hence the jury is still out on the success of the programme and the appropriateness of its governance structure, the recent UN Statistical Commission meeting was optimistic of a successful outcome. It appreciated the significant progress in the programme due to the leadership of the ICP Executive Board, the World Bank, the regional coordinating organisations, and the dedication of the participating national statistical offices.

6 SOME REFLECTIONS ON GLOBAL STATISTICAL GOVERNANCE

Various international statistical activities, with varying governance arrangements have been described above. What can we make of it all? The first conclusion is that there seems to be no single right way to conduct these various activities. They each have their unique origins and, in may cases, reflect the statistical needs for one or a combination of the international players to meet their mandates. The key role of the UN Statistical Commission in much of the activities described above is evident. The Commission considers special issues of concern in international statistical development, methodological issues, coordination and integration of international statistical programmes, and support of technical activities in statistical and organisational matters. The Commission is long-standing, its first session having been held in 1947. Since 2000, the Commission has met annually.

The international, supranational, and regional organisations have a key role to play in supporting the work of the Statistical Commission. To ensure appropriate coordination, an Inter-agency Committee for Coordination of Statistical Activities (CCSA) plays an important role in ensuring appropriate alignment of the activities of its members (see Appendix II for the CCSA terms of reference).

Country chief statisticians attend the UN Statistical Commission, and the agendas for Commission meetings tend to reflect the statistical agendas of the national statistical offices. As such, financial statistics, typically compiled within central banks in countries, tend not to attract much attention and are covered in periodic reports by the TFFS to the Commission.

Some international statistical activities fall solely within the province of a single international agency and the governance arrangements for that agency carry over to the statistical activity. The paper has highlighted some of these activities

¹⁹ The website of the United Nations Statistics Division (http://unstats.un.org/unsd/default.htm) describes the Commission as "the apex entity in the international statistical system where international standards and activities are considered and approved".

in the IMF context. Other activities require much more collaboration and groupings, ad hoc or otherwise, are formed to handle governance issues. Examples include:

- a. Intersecretariat Working Groups. There are a number of these groups in existence including for national accounts, prices, and environment statistics. The groups have defined charters and formal working rules, and typically have authority to take forward methodological standards work in defined fields of statistics. International statistical manuals are typical products of such groups.
- b. "City" Groups. These tend to be less formal and are generally instituted and run by the national agencies, albeit with participation by interested international agencies. The groups work best when they focus on well-defined issues, generally relating to the identification and promulgation of best statistical practice. The paper noted earlier the existence of the Canberra II Group on non-financial assets, which is a good example of a "city" group. Others include the Ottawa Group on prices, the Voorburg Group on services statistics, the Delhi Group on informal sector statistics, the Rio Group on poverty statistics, and the Oslo Group on energy statistics. Significant advances in statistical thinking often emerge from these groups and the UN Statistical Commission provides a useful framework within which the work of these groups can reach a wide audience.

Looking forward, one should consider governance issues in the context of the emerging statistical needs of the global economy. The key dimensions here are the growing and rapid movement of goods, services, income, transfers, people, and capital across national borders. It could be argued that statistical methodologies are reasonably well established for goods, services, income, and transfers, albeit needing to be updated mainly through the mechanism of the *BPM5* revision. The growing importance of remittances raises important issues of statistical concept and compilation, which is being addressed under the auspices of a joint World Bank-IMF initiative. Very significant conceptual and practical issues arise in the compilation of migration statistics, which are also currently being addressed within the international community.

Significant headway has also been made in regard to capital movements and positions statistics, but much needs to be done. In a recent speech on reform of the IMF, Bank of England Governor Mervyn King noted:

"...[The IMF] should provide and share information about the balance sheets of all major countries, their composition and size, and links between them. The IMF has been in the forefront of the analysis of balance sheets for emerging market economies, and it needs to extend this approach to its surveillance of the industrialised world. In conducting this analysis, the IMF must look at countries' exchange rate choices. But no one price is a sufficient statistic for the effect of one country's policies on the rest of the world – even one as important as the exchange rate. Balance sheet analysis should be at the heart

of the surveillance process. That analysis should lead to an assessment of the risks to the world economy as a whole."²⁰

The data needs to support such analyses are extensive. Particularly important will be the ability to reconcile from one stock position to the next through analysis of transactions, revaluations, and other changes in volume of assets and liabilities. For each of the institutional sectors, the stock data will need to show, for relevant assets and liabilities, the currency and residency composition, and the maturity breakdown. The initiatives described earlier with respect to external and public sector debt, the CPIS, and a possible coordinated direct investment survey are relevant. Financial soundness indicators, compiled on a regular basis, are also a likely requirement. Clearly, the IMF will have a key role, but I see the Task Force on Finance Statistics as particularly important in advancing this statistical agenda. Some thought should be given to the formation of an Intersecretariat Working Group on Finance Statistics to oversee this statistical endeayour.

More generally, the international statistical community has proven to be quite adaptable to meet the demands of a world with constantly evolving social, economic, and environmental contexts. "Creative ambiguity" in governance arrangements will continue to be a hallmark for the future.

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- 1. Repurchase agreements
- 2. Employer retirement pension schemes
- 3. Employee stock options
- Valuation of non-performing loans, loans and deposits
 Non-performing loans
 Valuation of loans and deposits; Write-off and interest accrual on impaired loans
- 5. Non-life insurance services
- 6. Financial services
 Financial services
 Allocation of the output of central banks
- 7. Taxes on holding gains
- 8. Interest under high inflation
- 20 Speech by Mervyn King, "Reform of the International Monetary Fund," from the Indian Council for Research on International Economic Relations (ICRIER) in New Delhi, India on 20 February 2006.

- 9. Research and development
- 10. Patented entities
- 11. Originals and copies
- 12. Databases
- 13. Other intangible fixed assets
- 14. Cost of ownership transfers
- 15. Cost of capital services: production account
- 16. Government owned assets
- 17. Mineral exploration
- Right to use/exploit non-produced resources between residents and nonresidents
- 19. Military expenditures
- 20. Land
- 21. Contracts and leases of assets
- 22. Goodwill and other non-produced assets
- 23. Obsolescence and depreciation
- 24. Build-Own-Operate-Transfer (BOOT) schemes
- 25. Units

Ancillary units

Institutional units

Holding companies, special purpose entities, trusts

Treatment of multi-territory enterprises

Recognition of unincorporated branches

Privatisation, restructuring agencies, securitisation and special purpose vehicles (SPVs)

- 26. Cultivated assets
- 27. Classification and terminology on assets
- 28. Amortisation of tangible and intangible non-produced assets
- 29. Assets boundary for non-produced intangible assets

- 30. Definition of economic assets
- 31. Valuation of water
- 32. Informal sector
- 33. Illegal and underground activities
- 34. Super dividend, capital injections and reinvested earnings (government transactions with public corporations (earnings and funding))
- 35. Tax revenue, uncollectible taxes, and tax credits (recording of taxes)
- 36. Private/public/government sectors delineation (sectorisation boundaries)
- 37. Activation of guarantees (contingent assets) and constructive obligations
- 38. Transaction concept

Change of economic ownership (as term)

Assets, liabilities and personal effects of individuals changing residence ("migrant transfers")

Application of accrual principles to the debt in arrears

39. Residence

Meaning of national economy

Predominant centre of economic interest (as term)

Clarification of non-permanent workers and entities with little or no physical presence

- 40. Goods sent abroad for processing
- 41. Merchanting
- 42. Retained earnings of mutual funds, insurance companies, and pension funds
- 43. Interest and related issues

Treatment of index linked debt instruments

Interest at concessional rates

Fees payable on securities lending and gold loans

- 44 Financial assets classification
- 45. Decisions on additional issues submitted to the AEG

COMMITTEE FOR COORDINATION OF STATISTICAL ACTIVITIES TERMS OF REFERENCE

- 1. The Inter-agency Committee for Coordination of Statistical Activities was established on 19 September 2002 by the Inter-agency meeting on Coordination of Statistical Activities. Its objectives, which it takes over from the former Administrative Coordination Committee (ACC) Sub-committee on Statistical Activities ((a), (b) and (c) below, modified by (d) below) are:
- (a) to promote coordination, integration and complementarity among the statistical programmes of the international organisations, including the avoidance of duplication and reduction in reporting burdens on member states and to promote coordination and consistency in statistical practices and development;
- (b) to provide coordinated preparations for the treatment of statistical issues in intergovernmental meetings, including the Statistical Commission and coordinated follow-up of decisions of the intergovernmental bodies, thus providing a responsive focus for addressing the needs of member states;
- (c) the coordination activity aims to achieve an integrated system in the collection, processing and dissemination of international statistics by promoting the coordination of the international statistical system including technical cooperation in statistics. It also aims to facilitate the use in member states of internationally agreed concepts, definitions, recommendations and classifications of different international organisations by coordinating the work on methodological development and promoting harmonisation of the methodologies in various fields of statistics;
- (d) to foster good practices in the structuring and programming of statistical activities in the international organisations; within the above framework the Committee focuses on emerging issues requiring coordination, and followup of decisions to ensure action is taken; among these is presently the work on statistical indicators for monitoring progress towards the MDGs.
- 2. The members of the Committee comprise all members and observers of the former ACC Subcommittee on Statistical Activities, namely United Nations Statistics Division, the Regional Commissions, the UN Programmes and Funds, the specialised agencies and related organisations, certain non-UN intergovernmental organisations (OECD, Eurostat, the Interstate Statistical Committee of the Commonwealth of Independent States, the World Tourism Organization and the World Trade Organization), regional development banks and the International Statistical Institute. Other organisations can participate by invitation.
- Representation in the Committee is normally at the level of Director of an
 organisation's statistical service or equivalent. Participation at the highest
 statistical level is considered indispensable for the effectiveness of the
 Committee's work.

- 4. The Committee functions on a task oriented basis using lead agency arrangements. The Committee should strive for efficiency and effectiveness in its work and should adopt a strong pro-active approach.
- 5. The Committee meets on an ad hoc basis as required by circumstances, usually for two-and-half days, but the decision to hold meetings and their length is driven by substance and needs. In principle it is expected that there will be annual meetings, but advantage will be taken of the Statistical Commission session each year to bring the Committee together to consider any issues that need to be considered at that time and to reconsider the proposed agenda and need for the next scheduled Committee session. As formal Committee meetings provide an excellent opportunity for bilateral and multilateral discussions and networking, sufficient time should always be set aside in the meeting schedule for these activities. Coordination of activities between meetings and follow-up to decisions made at meetings are an important and integral part of the work of the Committee.
- 6. The Committee elects a Chairman who serves for a two year period and is eligible for re-election for a second two year term. The UNSD is the permanent Secretariat. UNSD is in particular responsible for the timely distribution of documents for the meetings. The Secretariat should also contact lead agencies well in advance of a meeting of the Committee concerning commitments made.
- 7. A decisions-and-actions-only report is prepared for adoption at the end of each meeting, which should cover also ongoing Committee activities which have occurred in the inter-meeting period. The report should specify the lead agencies which are responsible for any actions and follow-ups. This report is made available to the United Nations Statistical Commission and if necessary or desirable the report is referred to the High-Level Committee on Programmes of the United Nations Chief Executives Board on Coordination.

COMMENTS

JAN SMETS

First I would like to say how very much I have appreciated both excellent introductions, which highlighted in a very convincing way how principles of good governance play a key role in global governance as regards official statistics at the European Union level and at the worldwide level and allowed us to see how much progress has been made in terms of improving official statistics in major areas, thanks inter alia to the efforts of the institutions of the speakers. Allow me to make some comments and remarks.

Good statistics require good governance, an idea which in recent years has become more and more compelling for institutions, systems and processes. We know the principles which form the backbone of such governance:

- openness, aiming, through broad and clear communication, at a better understanding on the part of the public, which further helps to improve confidence in the institution;
- participation by third parties, which contributes to enhancing the quality and relevance of the output;
- accountability, which requires all responsibilities to be stated clearly; and
- effectiveness and coherence, which are directly linked to political objectives and leadership.

These principles play a crucial role in global governance as regards official statistics. They are not always applied equally throughout the statistical process. Therefore, we should be very pleased with the implementation of the European Statistics Code of Practice, which creates a formal common reference framework for Eurostat and the national statistical institutes, and which has benefited from existing international charters and frameworks, such as the United Nations Principles of Official Statistics and the International Monetary Fund (IMF) Data Quality Assessment Framework. As I see it, the preliminary analysis of the self-assessment exercise by the individual entities points to good results, although there is still some room for improvement in the fields of potential error monitoring in sampling surveys and of accessibility of the metadata.

I am convinced that these metadata deserve more attention. Everyone will agree that good statistics require accuracy, timeliness and completeness, but a lot of attention should also be devoted to transparency, which can best be achieved through the metadata, as these provide the user with information enabling him to understand fully the content of a figure and to interpret it correctly, and allowing him to use it in order to make a rough assessment of the data quality. These metadata should normally include a full description of the sources and statistical treatment. By the way, I hope that new technologies, including the Statistical Data and Metadata Exchange framework, will contribute in achieving

these goals. In order to make a careful judgement, one should know, for example, whether data on the quarter-on-quarter growth of GDP have been adjusted for seasonal and calendar effects. But transparency also requires an efficient communication policy regarding revisions. We are all aware that these can be quite extensive and can sometimes lead to a revision of the analysis. In one important case, a revision of the national accounts showed that the recession had been much longer than previously thought. Therefore, data should be accompanied by indicators concerning the status of the underlying data – are they provisional or final? – and revisions of past data should be carefully explained. And let us also be transparent regarding the shortcomings of the data, in order to avoid exaggerated expectations and perhaps encourage greater willingness to provide resources for achieving improvements. Changes in compilation methods, the use of data from new sources or the introduction of new definitions should be communicated in a proactive way. The occasional revision of the Belgian national accounts, for instance, is announced and explained one year in advance, and, at the time of implementation, the changes and their effects are explained in detail.

In addition, good governance in a global economy requires methodological revisions of international statistical standards or manuals to be coordinated in an attempt to improve coherent statistics. In that respect, I wholeheartedly support the idea of keeping the national accounts statistics as the overarching reference framework for economic statistics and aligning changes in other statistics with those made in the national accounts. This is exactly what the IMF proposes to do in adapting the Balance of Payments Manual at the same time as the revision of the System of National Accounts (SNA 93). Another good example of coherent statistical governance was provided in 2005 by Eurostat, when it set a strict common calendar for the introduction of the measure of "Financial Intermediation Services Indirectly Measured" in the national accounts.

Regardless of the framework used, special attention should, in all approaches to good governance, be paid to the institutional environment, with the emphasis on absolutely crucial principles such as impartiality and professional independence. Adequacy of resources, not only financial but, especially, in terms of competent staff, is a prerequisite for the good functioning of the statistical system and good returns for the users. This institutional environment is especially important at a time when statistics play a dominant role in the assessment of policies, distribution of public aid and the decision-making process of all economic actors.

International institutions such as the ECB, Eurostat and the IMF clearly play a very important role in promoting global governance. Given that these institutions are confronted with a huge heterogeneity of countries, compliance with the general principles certainly requires a lot of effort. I strongly believe that global governance can only be attained if all statistical institutions are involved in one way or another. For practical reasons, the most efficient way involves the international institutions, which are well equipped to address common data challenges and can pool resources, where priorities can be set

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and where further standardisation of the criteria for good global governance, or at least a sort of common core, should be developed. These criteria can then in turn be imposed on all institutions participating in the production of official statistics. The current first revision of the SNA 1993, for instance, has provided an appropriate solution to the complex structure of a worldwide project with far-reaching consequences. Streamlining the process involving different stakeholders and the use of internet facilities for publication and participation are the most visible achievements. The inevitable and desirable increasingly pivotal role of international and supranational institutions in similar processes, however, holds a serious risk that national institutions will participate less, notwithstanding the fact that they will have to do quite a large part of the implementation of any new methodology. Therefore, it remains absolutely necessary that the national producers of statistics be invited to participate in developing and maintaining global governance. The provision of an adequate infrastructure and relevant top-down information in that area must be considered to be a key task of the supranational institutions.

I would like to conclude by making an observation which has to do with the increasing need of central bankers and other policy-makers for useful statistics and the role users can play. There is clearly a need to obtain data that allow us to better observe changes in the economy and the financial sector. This might involve new data or, more commonly, improvements in existing data. The following examples may be cited: import prices, housing prices, securities market developments such as securitisation, and financial positions and exposures of the key sectors of the economy, including non-bank financial intermediaries such as pension funds, investment companies and hedge funds. More progress should also be made in obtaining coherent statistics on the global economy, as shown by discrepancies in the international trade figures and the financial balances and flows between countries as well as between the balances of the real and financial accounts. Again, the international institutions can and should play an important role in identifying the problems and developing methodologies, but also by intensifying the focus on ways to cope with factors that hinder economic analysis.

We have to acknowledge, though, that priorities have to be set. Satisfying users could serve as a good guideline. Surveys among users can be useful to sound them out on their preferences, since in the end it will be the users who determine the direction of new statistical developments. Both introductions allude to this issue and I think there is an increased need to gear the views of users and compilers of statistics to one another. For instance, with respect to the challenging and important idea of the balance sheet approach, it would be very interesting to have not only an Inter-Secretariat Working Group to develop the work, but also active involvement of users and compilers to define what is most needed and to help design an appropriate analytical framework.

In order to allow central bank statistics users and compilers to exchange views on topical statistical issues of interest to central banks, the Irving Fisher Committee on Central Bank Statistics (IFC), which has operated informally under the umbrella of the International Statistical Institute since 1997, can play

a useful role. The IFC does not want to duplicate the activities of existing international bodies but to offer a platform for discussion and an exchange of views among central bank economists, statisticians and policy-makers. Recent examples which can be cited are the workshop the IFC organised last year with the Bank of Canada on data requirements for analysing the stability and vulnerability of mature financial systems and the workshop a few weeks ago at the Bank for International Settlements (BIS) on Consumer Price Index measurement issues. At the end of August this year, the IFC will organise a conference on "Measuring of the Financial Position of the Household Sector" at the BIS, which has hosted the Secretariat of the committee since early this year. In the next few weeks, we will invite key central banks to formally join the IFC in order to further discuss governance issues at a council meeting of the IFC. I sincerely hope that the IFC will, alongside the crucial contributions made by all statistical and international institutions, make its own original contribution to good statistics which W. Allen Wallis once called "a body of methods for making wise decisions in the face of uncertainty".

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DISCUSSION SUMMARY

Robin Lynch (Office for National Statistics in the United Kingdom) recommended the establishment of national, multi-skilled teams, comprised of statisticians, accountants, etc, as all nations were affected by global statistical governance issues. These teams would work together to produce an overview of a particular country in the context of globalisation, although national data would still have their purpose. Finally, he made an appeal to the international organisations to take the initiative in this coordination of practical statistical work.

With regard to the presentation by **Robert Edwards** (Director, Statistics Department, International Monetary Fund), **Evangelos Pantelidis** (Head of Balance of Payments, Bank of Greece) suggested the extension of the Coordinated Portfolio Investment Survey, which is conducted by the IMF, to foreign direct investment positions and flows, in order to facilitate international data comparability.

Edwards raised the issue of confidentiality and asked Marie Bohatá (Deputy Director General, Eurostat) how Eurostat intends to develop its handling of confidentiality issues, i.e. what to do if respondents did not object to their data being exchanged for statistical purposes. Bohatá replied that it was indeed possible for data providers to agree on exchange or even the publication of some of their confidential data. Confidentiality was indeed an important issue and, in general, the statistical agencies were extremely strict. However, she admitted that this posed a great obstacle to the quality of the statistics. It would be possible for much more data to be exchanged or published if only the data providers could agree. For example, Eurostat faced problems exchanging or publishing micro data. The Confidentiality Committee at Eurostat was investigating whether researchers could have access to anonymous micro data. It would be possible to increase the amount of available information by distinguishing between the treatment of data from enterprises and households, and information from public sources. Eurostat could possibly review these issues and revise the legislation accordingly, if stakeholders requested it.

Edwards agreed with Lynch on the need for leadership from the top level of international statistical organisations when it came to the issue of monitoring globalisation. This would contribute, for example, to the disclosure of information on emerging markets, particularly for those economies which did not have a culture of transparency. Moreover, he mentioned that the IMF had undertaken a feasibility study on the conduct of a Coordinated Direct Investment Survey (CDIS) with the aim of (a) assessing the level of interest among countries in an end-2009 CDIS; and (b) identifying any concerns regarding the comprehensiveness of the data collected and exchanged in the context of the CDIS. The feasibility study showed that countries were very interested in participating in such a survey. In addition, the study concluded that book values would be more appropriate than market values in terms of data collection. The United States intended to conduct a survey on outward investment, which was expected to produce results in 2012.

CONCLUDING REMARKS

JEAN-CLAUDE TRICHET

Colleagues, fellow central bankers, ladies and gentlemen,

It is a pleasure for me to address you on the occasion of the closure of the Third ECB Conference on Statistics. With this conference, we have continued our biennial tradition of holding a dialogue between the compilers of statistics and policymakers, academics and other users on the development of statistical requirements. This tradition was started four years ago by Eugenio Domingo Solans, the first ECB Executive Board member responsible for statistics, who left the ECB in May 2004 and sadly passed away soon afterwards.

The subject of this conference has been financial statistics for a global economy, and I would like to use this occasion to share with you some reflections upon the four themes discussed during this conference, namely:

- 1. Are financial statistics good enough to capture globalisation?
- 2. What are the challenges for national data collection in a global world?
- 3. Which are the statistical implications of financial stability and financial integration? and finally
- 4. What can we say on global statistical governance?

I will obviously focus on the necessary development of euro area statistics and I would like to begin with a brief review of the recent developments in these statistics.

RECENT DEVELOPMENTS IN EURO AREA STATISTICS

An evaluation of current euro area statistics should start with three observations. First, official statistics provide the foundation for both the economic and the monetary analysis of the ECB and therefore for its monetary policy. In addition, they are indispensable for the other functions of the ECB, for other economic policy-making in Europe and for a smooth functioning of the financial system. This also means that high demands are placed on these statistics.

Second, it is still less than a decade ago that the statistical requirements for the European Economic and Monetary Union were agreed and that the first euro area statistics became available. It can now be concluded that the compilers of statistics in Europe have gone a long way towards harmonising their national statistics and meeting the requirements in a relatively short period of time, and I would like to compliment them on this achievement.

Third, this progress has been possible thanks to excellent cooperation within Europe's statistical community, which consists of national central banks (NCBs), national statistical institutes (NSIs), Eurostat and the ECB. In particular, I would like to pay tribute to the Statistics Committee of the European System of Central Banks (ESCB) and the European Committee for Monetary, Financial and Balance of Payments statistics (CMFB) for the very fruitful role they play.

In fact, since I last addressed this audience, in April 2004, significant progress has been made, although also still much remains to be done. Concerning the euro area statistics compiled by the ECB, in close cooperation with the NCBs, I would like to recall some recent enhancements:

- Since January 2005, the euro area balance of payments has contained a quarterly geographical breakdown of the counterparties involved in transactions with residents.
- Furthermore, the international investment position (i.i.p.) statistics, which show the balance sheet of the euro area, are now available at a quarterly frequency.
- In a different field, the ECB now regularly compiles a set of statistical indicators that shed light on the state of euro area financial integration in many different financial markets.
- Another improvement concerns the semi-annual release by the ECB of a residential property price indicator for the euro area.
- The ECB's publication of the quarterly government revenue, expenditure and deficit for the euro area, based on contributions from NSIs, was recently complemented by fairly detailed data on government debt and the deficitdebt adjustment.
- The ECB's financial analysis benefits from separate statistics that are now available for securities issued at fixed and floating rates, and zero-coupon bonds.
- Finally, the accessibility of ECB statistics and the national breakdowns has been enhanced as the same set of tables is now available on the websites of the ECB and of most of the Eurosystem NCBs, in the national languages of the central banks concerned.

In addition to the financial and monetary statistics compiled by the Eurosystem, the ECB makes intensive use of general economic statistics compiled by Eurostat and the NSIs. First and foremost, this concerns the Harmonised Index of Consumer Prices (HICP) for the euro area, which has continued to be both timely and reliable. In this context, the gap between inflation perceptions and actual inflation is now decreasing in many euro area countries. As you know, this gap originated when the euro was introduced and it became complex for consumers to process price information. The ECB also supports the further

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development work in this field, including the priority attached to compiling a reliable indicator for the price development of owner-occupied housing services and a further enhancement and harmonisation of adjustments for changes in the quality of goods and services. The latter work should also benefit the estimation of GDP volume growth, which is another key indicator for the ECB.

GDP and the national accounts statistics on which it is based have recently been revised in many countries. Whereas methodological improvements are welcome, it is important that the timing of such revisions, and of the release of the Principal European Economic Indicators more generally, be coordinated among countries. Otherwise, European users could be confronted with constantly changing euro area aggregates. In this context, recent ECB analysis found that, since the start of the euro area, the revisions of the principal quarterly euro area indicators have been fairly modest and significantly smaller than the revisions of the same indicators for the largest euro area countries and for the United States. This is explained by the fact that revisions of national statistics largely cancel out at the euro area level. At the same time, this result reinforces the importance of aggregate euro area statistics for the analysis of the euro area economy.

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. These euro area accounts will provide a wide-ranging overview of the euro area economy and enable a much more comprehensive analysis to be made of the interactions among sectors and between non-financial and financial developments. In turn, this will permit an even more comprehensive crosschecking of the economic and monetary pillars of the ECB's monetary policy analysis. Furthermore, these accounts will provide users for the first time with regular key economic indicators for the euro area, such as household savings and corporate after-tax profits. They will be compiled in close cooperation between the ECB, the NCBs, Eurostat and the NSIs, and will be developed in two steps. The first annual accounts will be published soon and the inaugural release of the quarterly euro area accounts is expected in the spring of next year.

These and other recent enhancements in euro area statistics are not only of great importance for policy-making in Europe but also contribute to a better analysis of the global economy. However, continuing globalisation poses some particular challenges to statistics, as has been clearly demonstrated by the excellent contributions to this conference. Drawing from these contributions, I will now turn to the themes you have discussed.

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ARE FINANCIAL STATISTICS GOOD ENOUGH TO CAPTURE GLOBALISATION?

Globalisation stems from economic interlinkages, which are statistically reflected in the balance of payments and international investment position statistics and in the "rest-of-the-world" accounts of the national accounts framework

In a world of increasing financial integration, statistics on cross-border transactions and positions also gain in importance. However, at present the analysis of international economic inter-linkages is hampered by the fact that, for all pairs of countries, bilateral transactions statistics do not mirror each other; this is the asymmetry problem. Related to this, the sum of the financial transactions in the balance of payments typically does not match the sum of the non-financial transactions, the difference being called "errors and omissions". To eliminate both types of discrepancy, it seems best to employ a multi-pronged strategy. At least, it would be expedient if the legal framework protecting statistical confidentiality were to allow the exchange of such confidential information among the compilers concerned, for the strict purpose of statistical quality improvement.

Globalisation can only be analysed in a meaningful way if the concepts, definitions and classifications underlying the statistics are standardised. Fortunately, this is largely the case, as these standards are laid down in, for example, the 1993 System of National Accounts and the IMF Fifth Balance of Payments Manual. These global guidelines are being updated and the ECB attaches particular importance to the reinforcement of their mutual consistency and to the outcome of this process in general. For instance, it is of key importance that these statistical standards prescribe a faithful representation of economic reality as reflected in monetary transactions and do not impute an artificial price to non-monetary transactions or recognise assets and liabilities that are not viewed as such by the economic actors. It should then also be acknowledged that welfare cannot be adequately captured by any single statistic, including GDP.

The revised statistical standards should also reflect the fact that modern economies are knowledge economies, in which the quality of the labour force is the key success factor. This requires the regular compilation of disaggregated labour accounts as an integral part of the national accounts. This, in turn, would substantially enhance the analysis of productivity growth and shed a better light on the evolving global distribution of labour, in which skill levels play a crucial role.

In general, the statistics not only attempt to capture the ever increasing globalisation, but they are also affected by it. This is a subject to which I now turn.

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CHALLENGES FOR NATIONAL DATA COLLECTION IN A GLOBAL WORLD

Globalisation has certainly benefited from a progressive deregulation of cross-border transactions. At the same time, though, this deregulation has adversely affected the quality of national statistics. For instance, equal prices for cross-border and national payments in euro are difficult to match with widely divergent reporting obligations related to these two types of payment. Traditionally, however, many balance of payment reporting systems were based on cash settlements, and a transition to a more direct reporting system requires a substantial investment for the statistics compiler concerned, which is typically the NCB.

More generally, globalisation has intensified competition among countries and this has also led to an increasing emphasis on the administrative burden put on business. Although the statistical response burden accounts for at most a few percent of the total administrative burden, it has also come under close scrutiny. Indeed, statistics compilers should constantly attempt to minimise the costs for respondents and to make use of already existing information to the maximum extent. This requires, however, that statisticians have unrestricted legal access to all relevant administrative records, while of course maintaining their very strict confidentiality standards. This applies, for instance, to all tax records, including the cross-border data that become available through the EU Savings Directive. This being said, I am convinced that it is not possible to obtain good quality, timely statistics on the basis of administrative records alone. In other words, the high-quality statistics that are indispensable for the ECB's monetary policy unavoidably place some burden on business, including small and medium enterprises, even if this burden has to be minimised. It is therefore important that this data collection modality is adequately anchored in a legal framework, in order to guarantee representative survey results. At the same time, as regards the collection of data from the financial sector, supervisors and statisticians should intensify their cooperation in order to align, and wherever possible integrate, their data collection efforts to a maximum extent.

Whereas globalisation complicates the compilation of national statistics and also makes them somewhat less meaningful, particularly in those fields where the decisions are now made at the euro area level, the collection of euro area statistics should continue to make the best possible use of the enormous statistical expertise at the NCBs and the NSIs. However, this does not imply that for many years to come each and every statistic should be compiled by the relevant authorities in each and every country. Instead, it is perhaps time to draw conclusions from the fact that the collection of statistics, particularly the increasingly automated retrieval of statistical data from the ledgers of larger corporations, is typically characterised by significant economies of scale. Similarly, significant efficiency gains would be reaped if sample sizes for statistics, particularly the very timely, high frequency statistics, are attuned to European needs. It goes without saying that countries that still want to spend additional resources to maintain nationally representative samples will be free to do so.

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STATISTICAL IMPLICATIONS OF FINANCIAL STABILITY AND FINANCIAL INTEGRATION

Although this conference has devoted a single session to the statistical requirements for financial stability and financial integration analysis, these requirements are not easily aligned at first sight. In fact, financial stability analysis puts new demands on data availability, if only because it requires consolidated data and strengthens the case for making available a whole range of micro-data. At the same time, however, macro-statistics are typically much more reliable than micro-data, particularly those in the tail of the distribution, if only because significant misreporting by an "average" firm almost invariably means that it ends up in the tail. In any case, this analysis would be served by the setting-up of reliable and flexible pan-European micro databases. In fact, the ECB, in close cooperation with the NCBs, embarked on such an ambitious project several years ago, when it designed the Centralised Securities Database (CSDB) to contain an accurate representation of individual securities issued, or potentially held, by euro area residents.

Another requirement for financial stability analysis is related to the increasing tendency to transfer risks among institutions and among countries. This also points to important remaining gaps in our current euro area statistics, particularly concerning insurance corporations and pension funds, the collateralisation of lending business, investment funds (which include hedge funds), and special purpose entities (which include securitisation vehicles).

Concerning statistical indicators of financial integration, I have already alluded to the ECB's contribution and I look forward to the release of an enlarged set of indicators this autumn. In addition, the contribution of the ECB to the short-term paper (STEP) market in Europe could be mentioned, in particular through the regular publication of statistics on volumes and prices.

GLOBAL STATISTICAL GOVERNANCE

I have given some examples of trends that all point to a more global, and particularly more European, coordination of statistics. It is conceivable that over time the European statistical systems will develop in the direction of genuine systems with regional competence centres, coordinated by the European institutions. The mutual interdependence of statistics compilers would then increase, which in turn calls for a further strengthening of international statistical governance. In this regard, it may be mentioned that the ECB has subscribed to a set of universal core principles for international statistics. Similarly, it may be worthwhile exploring an elaboration of the Eurosystem mission statement in the field of statistics.

Good governance is particularly important for statistics that have a direct administrative and policy use in Europe, such as the indicators for assessing the convergence of EU Member States that do not yet belong to the euro area and the statistics underlying the excessive deficit procedure. While Eurostat is

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responsible for these statistics, it can benefit, when deciding upon conceptual issues, from the considerable statistical expertise available at the ECB, the NCBs and the NSIs, as brought together in the CMFB. In any case, the compilation of government finance statistics – and all other statistics for that matter – should not be subject to political considerations. The compilers of these statistics must act in full scientific independence, and the government must ensure that sufficient resources are made available for their task. At the same time, it is important to regularly review the cost/benefit ratio of existing statistics that were agreed upon many years ago.

CONCLUDING REMARKS

Ladies and gentleman, credible euro area statistics lie at the heart of the ECB's monetary policy-making. At the same time, these statistics are embedded in and affected by a globalising world. The key to meeting the challenges this poses lies with further enhanced international cooperation among statistics compilers. Another key success factor is continuous cross-fertilisation between users and producers of statistics. An example of such cooperation in the near future will be the first release of integrated financial and non-financial euro area accounts for the institutional sectors, which will permit an even more comprehensive cross-checking of the economic and monetary pillars of the ECB's monetary policy analysis. In addition, users and policy-makers should keep in mind that indispensable high-quality statistics unavoidably place some burden on business, including small and medium enterprises, although this burden can be minimised if statisticians obtain appropriate access to administrative data collected for other purposes.

This conference has indeed provided a significant contribution to the cross-fertilisation between users and producers of statistics and I would like to thank you all very much for your participation and for your attention.

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CONTRIBUTORS

Blocks, Hein G. M.

Chairman of the Executive Committee of the European Banking Federation and Managing Director, Netherlands Bankers' Association

Bohatá, Marie

Deputy Director General, Eurostat

Briscoe, Simon

Statistics Editor, Financial Times

Brouwer, Henk J.

Chairman of the ESCB International Relations Committee and Member of the Governing Board, De Nederlandsche Bank

Constâncio, Vítor

Governor of Banco de Portugal

Edwards, Robert W.

Director, Statistics Department, International Monetary Fund

González-Páramo, José Manuel

Member of the Executive Board, European Central Bank

Gudmundsson, Már

Deputy Head of Monetary and Economic Department, Bank for International Settlements

Keuning, Steven

Chairman of the ESCB Statistics Committee and Director General Statistics, European Central Bank

Krahnen, Jan Pieter

Professor of Finance, Johann Wolfgang Goethe University, Frankfurt am Main and Director of the Center for Financial Studies

Liikanen, Erkki

Governor of Suomen Pankki – Finlands Bank

Mersch, Yves

Governor of Banque centrale du Luxembourg

Reichlin, Lucrezia

Director General Research, European Central Bank

Roldán, José María

Director General of Banking Regulation, Banco de España, and former Chairman of the Committee of European Banking Supervisors

Roubini, Nouriel

Professor of Economics and International Business, Stern School of Business, New York University

Sala-i-Martín, Xavier

Professor of Economics, Columbia University

Smets, Jan

Chairman of the Irving Fisher Committee on Central Bank Statistics and Director of the Board, Nationale Bank van België/Banque Nationale de Belgique

Strauss-Kahn, Marc-Olivier

Director General, Economics and International Relations, Banque de France

Trichet, Jean-Claude

President of the European Central Bank

RAPPORTEURS

van der Ark, Paul

Directorate General Statistics, European Central Bank

Bosetti, Isabella

Directorate General Statistics, European Central Bank

Damia, Violetta

Directorate General Statistics, European Central Bank

Gadsby, Robert

Directorate General Statistics, European Central Bank

Oliveira-Soares, Rodrigo

Directorate General Statistics, European Central Bank

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