EUROPEAN CENTRAL BANK

EUROSYSTEM

A STRATEGIC VISION FOR STATISTICS CHALLENGES FOR THE NEXT 10 YEARS

ECB EZB EKT EKP

**FOURTH
ECB CONFERENCE
ON STATISTICS
24 and 25 April 2008**

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CONTENTS

FOREWORD

European policy-makers need access to a wide array of timely, high-quality statistics on which to base their decisions. While much has been achieved over the past ten years and ECB statistics are used not only by the members of the ECB Governing Council but much more widely, euro area statistics are facing new challenges such as globalisation, deregulation, financial innovation and technological progress. The ongoing financial turbulence has also led to a call for more transparency, inter alia by developing relevant new statistics. At the same time, euro area statistics must be produced by a highly efficient production network so that costs and response burden are kept to a minimum. These conflicting demands call for the development of a strategic vision, with close coordination between policy-makers, other users and compilers of statistics. This was the purpose of the Fourth ECB Conference on Statistics, held in April 2008. This Conference built upon our tradition of regular high-level dialogue between the users and compilers of statistics, including policy-makers, the media and the financial industry. At the same time, it has provided an excellent opportunity to take stock of the progress achieved concerning the availability and quality of euro area statistics that are genuinely European and not just the sum of Member States' national data. Views were exchanged on their further development with the main users, namely:

Policy-makers, represented by members of the ECB's Governing Council, namely, Miguel Fernández Ordóñez (Governor, Banco de España), José Manuel González-Páramo (Member of the Executive Board, ECB), John Hurley (Governor, Central Bank and Financial Services Authority of Ireland), Klaus Liebscher (Governor, Oesterreichische Nationalbank), Athanasios Orphanides (Governor, Central Bank of Cyprus), Jürgen Stark (Member of the Executive Board, ECB), Axel A. Weber (President, Deutsche Bundesbank) and myself, and by Stanley Fischer (Governor, Bank of Israel) and Joaquín Almunia (Commissioner for Economic and Monetary Affairs, European Commission).

A representative of banking and business associations, namely, Giuseppe Zadra (Chairman, European Banking Federation Executive Committee).

The media, namely, Evan Davis (Presenter, BBC Radio 4's "Today" programme) and Patrick Lane (Deputy Business Affairs Editor, The Economist).

The Conference was organised in four sessions:

–   The role of harmonised monetary, financial and economic statistics in monetary and other economic policies

–   Future directions for the collection and compilation of statistics

–   Future coordination and collaboration strategies in the area of statistics

–   How best to communicate European economic and financial statistics

In view of the importance to the ECB of euro area monetary, financial and external statistics, the Governing Council has endorsed a strategic vision that should further increase the effectiveness and efficiency of the compilation of these statistics by the Eurosystem. This entails even more intensive cooperation, not only among the statistics departments of the NCBs and the ECB, but also between those departments and external parties such as statistical institutes, supervisors and the financial industry. I hope that the gains resulting from these synergies will then be used to close some remaining gaps in the ECB's statistics and to improve the timeliness and coverage of relevant information, and thereby market transparency. I believe that this Conference has provided a significant contribution to this ongoing process and I look forward to the next Conference, scheduled for spring 2010.

Jean-Claude Trichet

President

SUMMARY OF CONTRIBUTIONS

STEVEN KEUNING AND RICHARD WALTON

The theme of the Fourth ECB Conference on Statistics was the implementation of a strategic vision for euro area statistics which would address the statistical challenges and opportunities in the next ten years. Such a long-term vision had been endorsed by the Governing Council of the ECB in December 2007. The aim of the Conference was to provide a forum for statisticians from central banks, statistical offices and international organisations; policy-makers; researchers; representatives of banking associations; and the media to discuss and agree on the opportunities this vision presents to further enhance and communicate financial, monetary and economic statistics for policy-makers and for the citizens of Europe.

This introduction provides a summary of the contributions and discussions which are contained in the rest of this volume. These contributions can be grouped into four parts. First, ECB President *Jean-Claude Trichet* provided his views on the subject. Second, *Joaquín Almunia*, Commissioner for Economic and Monetary Affairs in the European Commission, and *Stanley Fischer*, Governor of the Bank of Israel, made keynote speeches. Third, the Conference comprised the following sessions:

1. The role of harmonised monetary, financial and economic statistics in monetary and other economic policies.

2. Future directions for the collection and compilation of statistics.

3. Future coordination and collaboration strategies in the area of statistics.

4. How best to communicate European economic and financial statistics.

Finally, *José Manuel González-Páramo*, Member of the ECB's Executive Board, delivered his concluding remarks to the Conference.

In his opening address, *A strategic vision of euro area statistics: the ECB's view*, *Jean-Claude Trichet* reflected on: 1) recent enhancements in euro area statistics from the ECB policy-maker's perspective[1], 2) the importance of an appropriate communication of statistics and 3) the strategy for the further development of euro area statistics. He recalled the paramount importance of reliable and timely euro area economic, monetary and financial statistics for the ECB's decision-making and noted the very fruitful collaboration between the ECB, notably its Directorate General Statistics (DG-S), with both the national central banks (NCBs) and the European Commission, notably Eurostat. He also highlighted the progress achieved over the last two years concerning the

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1   See   http://www.ecb.europa.eu/pub/pdf/other/ecbstatisticsanoverview2008en.pdf   for   an overview of all ECB statistics.

availability and quality of euro area statistics. For example, he referred to the regular joint ECB/Eurostat release of quarterly euro area accounts, which provide a comprehensive and consistent overview of its economic, financial and monetary developments. At the same time, he would strongly favour an improvement in the timeliness of such releases, which would then be even more useful for the ECB's monetary policy-making.

Under his second theme, the ECB President stressed that communication with the general public and financial markets was crucial for any central bank, because it can help to enhance the effectiveness of monetary policy. Maintaining the public's confidence in the ECB statistics upon which its policy decisions are based requires adherence to the statistical principles set out in Community law[2]. Statistics also need to be adequately explained, and this applies in particular to one of the most important statistics for the ECB's monetary policy-making, the Harmonised Index of Consumer Prices (HICP). In this context, he noted that inflation perceptions may be based on a partial inflation concept that may overweigh frequent and out-of-pocket purchases, while the HICP reflects the evolution of consumer prices in general.

In the third theme, he laid down a twin-track strategy for euro area statistics, envisaging both product and process innovations. A number of examples were given of new European System of Central Banks (ESCB) statistical products that are in the pipeline, such as statistics on investment funds, and of its high priority requirements for euro area statistics compiled by Eurostat and the NSIs. The ECB would also support market initiatives to improve market transparency as regards the issues that have come to the fore in the ongoing financial turmoil. As regards the process innovations, he emphasised that in the future the same data should be collected only once, that the Eurosystem statistical function should operate as an efficient production network, and that the fitness for use of the statistics produced by the Eurosystem and its statistical communications should be further enhanced.

The Conference continued with a keynote speech by *Joaquín Almunia*, Commissioner for Economic and Monetary Affairs in the European Commission, entitled *European economic statistics*: *achievements and challenges*. He stated that statistics are vital at every stage of the policy-making process and especially in the European Union. He also confirmed that the major achievements of European economic integration, such as the introduction of the euro and the 2004 enlargement, would not have been possible without reliable, harmonised European data. According to him, much of the truly impressive progress in recent years, for instance the improvements in the timeliness of key infra-annual macro-economic indicators, the so-called Principal European Economic Indicators, was made possible by the enhanced cooperation between Eurostat, the NSIs, the ECB and the NCBs.

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2   See http://www.ecb.europa.eu/stats/html/pcstats.en.html for the "Public commitment with respect to the ESCB's statistical function".

Then he addressed the new challenges of providing users with accurate, reliable and relevant economic statistics, including in the area of economic statistics; and a better measurement of the intangible aspects of the economy and sustainability, in respect of both public finances – in the face of ageing populations – and economic activity – in the face of resource depletion. Furthermore, Eurostat has launched two initiatives to monitor the globalisation of the production process: the Eurogroups Register project and the Foreign Affiliates statistics. In addition, the updates of the System of National Accounts (SNA) and the European System of Accounts (ESA) represent very important projects with far-reaching implications.

In general, he stressed the importance of the European Statistical System (ESS) as a key pillar in the international statistical system, in the light of its responsibility in setting standards and guidelines on procedures and methods as well as on the quality of statistics, and he felt there was scope to increase the representation of the ESS at the global level. Finally, without the trust of users, statistics cannot fulfil their role as an essential public service. He was convinced that the significant re-organisation of the governance structure for Community statistics and the revision of the basic legal framework for the production of European statistics will all help to strengthen further the reliability of European statistics, and he welcomed the very supportive role that the ESCB is playing in this process.

The first session, *The role of harmonised monetary, financial and economic statistics in monetary and other economic policies*, was introduced by its Chair, *Axel Weber*, President of the Deutsche Bundesbank. He noted that good statistics play an indispensable role in the proper conduct of monetary policy and referred to the exclusion, hitherto, of owner-occupied housing from the HICP, the Eurosystem's yardstick of price stability. He suggested a twin-track approach: adding owner-occupied housing to the HICP basket and developing high-quality price indices for new and re-sold housing.

In the first presentation of this session, *The contribution of monetary and financial statistics to the conduct of monetary policy, Jürgen Stark*, Member of the ECB's Executive Board, recalled that developing monetary and financial statistics is an important responsibility of the ECB. He referred to the paucity of statistics a decade ago and to the concerted effort to collect and construct additional data, concluding that uncertainty created by the lack of statistical information has dissipated over time.

Then he elaborated on the ECB's agenda to deepen the monetary analysis, which will also be aided by the integrative framework provided by the new euro area accounts, and highlighted a number of important statistical requirements: 1) long and consistent time series, 2) harmonised statistical concepts and definitions, 3) timely data, also to detect turning points that may lead to turning points in the evolution of the policy stance, 4) a comprehensive data set, including breakdowns of the monetary statistics by counterparty sector, 5) consistency between the monetary data and other relevant statistics, 6) more detailed and timely data on corporate and household finance, on the balance sheets of non-monetary financial

institutions, and more generally on sectoral wealth, and 7) clear and stable statistical definitions; but also 8) sufficient flexibility to include new financial instruments and behaviour and 9) close cooperation between reporting agents, statisticians, users and policy-makers.

Finally, he asserted that the ECB's close analysis of the timely, monthly monetary statistics has proved crucial in understanding the ongoing financial turmoil, and that it has also identified a number of statistical lacunae, for example regarding the extent of credit risk transfer from bank balance sheets. He concluded that a self-reinforcing virtuous cycle can be created, whereby better data serve better analysis that in turn identifies the necessary improvements to the data.

The second presentation of the session was given by *Giuseppe Zadra*, Chairman of the Executive Committee of the European Banking Federation (EBF). In *The contribution of interest rate statistics for the monitoring of the integration of EU banking markets*, he focused on interest rate statistics, an economic parameter that is used every day by every bank. In passing, he observed that the banking statistics provide a lot of information about the outstanding volume of cross-border assets and liabilities and that the Eurosystem has substantially improved its publications over time. While stating that the ECB's interest rate statistics are an important element in assessing integration in the European banking market, he called upon his audience to also be aware of their limits, mainly because they reflect heterogeneous products offered on heterogeneous markets. Nevertheless, it is fair to conclude that little progress has been made with respect to integration as long as the dispersion between national rates remains of the magnitude that we have seen for some years.

He welcomed the continued efforts of the ECB to improve interest rate statistics and expected that the additional information will facilitate an assessment of how banks respond to changes in the ECB's rates. It may even improve the comparability of national interest rate levels, but – because of continuing large divergences between the products of the different banking systems – only to a limited extent. Finally, he asked whether the ECB could release data on the new business and the outstanding amounts underlying the national interest rate statistics, as well as a more detailed breakdown of interest rate data by (risk) class of loan and more average interest rates of standard bonds.

The discussant, *John Hurley*, Governor of the Central Bank and Financial Services Authority of Ireland, recalled the need for a broad-based approach to monetary analysis by linking different statistical outputs, which must also be timely and of a high quality. He identified some statistical gaps that had emerged, particularly concerning statistics on Other Financial Institutions (including credit risk transfer), securitisation and globalisation of economic activity. He noted the ongoing ESCB initiatives which will deepen our understanding on these issues, but suggested that central banks may additionally use more flexibility. This can be done by an increased use of existing data and focused surveys, for instance to deal with financial innovation. The importance of interest rate statistics as an indicator of financial integration and of cross-country differences in the monetary policy transmission mechanism was also acknowledged. The Eurosystem could

be more proactive in improving financial literacy in the euro area, e.g. related to interest rate divergences, while the integration and harmonisation of credit registers would also foster cross-border retail financial services activities.

The second Conference theme, *Future directions for the collection and compilation of statistics*, was introduced by the Chair, *Miguel Fernández Ordóñez*, Governor of the Banco de España. He set out generally agreed principles for the efficient production of statistics and highlighted some options for progress: first, collecting more granular information, which would however involve a shift of the costs from reporting agents to NCBs; secondly, lifting the potential obstacles to collaboration and to the reuse of data; and, finally, undertaking a frank analysis of national statistical requirements.

Klaus Liebscher, Governor of the Oesterreichische Nationalbank, then spoke about *Torn between new data needs and respondents' fatigue – are efficiency gains the philosopher's stone?* He observed that modern central banks are the natural competence centres for producing domestic as well as cross-border financial statistics. This production is a core task and should be concentrated in one functional area. In the first decade of Eurosystem statistics, the output had tripled with basically unchanged human resources and the Eurosystem statistical websites now receive 130 million hits per year. These statistics are an international public good, which can help to foster a euro area/European identity. Yet, this may require 'packaging' these statistics by target group (including the respondents).

The new data needs in the next decade, also in view of the rapidly developing financial markets, must be covered by equally rapidly evolving statistics, including very complex ones. Besides, the ECB should have the legal means to collect statistical information for financial stability purposes and from insurance corporations and pension funds. At the same time, statistical collection systems have to be very advanced and flexible in order to alleviate the response burden. In that context, coordinating on a national level with different statistics producers might make it harder to coordinate on a Eurosystem level if arrangements differ from one country to another. However, in a longer-term vision, the Eurosystem must work like one organic system that optimises the multinational production process in a network with harmonised technical standards, a clear division of tasks, common statistical tools and infrastructures, and maybe centres of excellence for specific tasks. This may include common international databases. He concluded: "The quest for efficiency is therefore nothing new for statisticians, but already well established, maybe more so than in other fields of central banking."

The key message of the discussant *Athanasios Orphanides*, Governor of the Central Bank of Cyprus, was that efficiency can be improved. Enhanced cooperation with NSIs could contribute to this goal and would also improve consistency between the different statistics. In addition, the example of the Centralised Securities Database (CSDB) may pave the way for similar approaches in the future. The introduction of euro area-wide criteria for selecting the reporting population could lead not only to a lower reporting burden, but also to substantially reduced costs in small countries like Cyprus, even if the

system should still allow for the collection of additional national information. In addition, common ESCB tools such as the Statistical Data Warehouse (SDW) offer important benefits. His remaining questions focused on the merits and costs of existing statistics, on choosing the best institution to collect various data, on any limits to Eurosystem collaboration, on any trade-off between simplicity and completeness in data collection and management, on implementing the transition to a common data collection model and on the level of dialogue between users and producers of statistics.

During the Conference dinner, *Stanley Fischer*, Governor of the Bank of Israel, delivered his keynote speech, *The crucial role of statistics for central banks: present and future*, and asserted that the policy-maker needs statistics to know where the economy has come from and where we are now, and to use that information to predict where we are going. Central bankers need statistics in particular to monitor price stability, economic activity and financial stability. For the first area, comprehensive data are needed, for which a monthly frequency seems adequate as long as inflation is relatively low. The timeliness of data on real activity caused a serious problem for policy-making; GDP data are generally three months out of date on the day they are first received, but monthly real GDP data could be too noisy. Finally, the central bank role in supporting financial stability needed the collection of massive amounts of data and there is a great deal of work to be done on this topic.

He also reviewed data quality and the initiatives of the international community, particularly the SDDS (special data dissemination standard) and GDDS (general data dissemination standard). The SDDS (to which 64 countries and the euro area have subscribed) established not only rules for disseminating data, but also a standard for what data ought to be disseminated, whereby the frequency and timeliness of publishing official reserves data proved to be most controversial. The SDDS has become a valuable benchmark for the dissemination of data, and countries that meet the standard evidently achieve a reduction in their borrowing costs. The GDDS (to which 88 countries have subscribed) has provided information on how to run a statistical service. Similarly, the Statistics Quality Framework (SQF) of the ECB[3] should be very useful to central banks in their data collection and dissemination practices and should help them to improve the quality of their statistics.

The third session was a joint ECB/European Commission (Eurostat) session, *Future coordination and collaboration strategies in the area of statistics*, which started with some introductory remarks by its Chair, *Hervé Carré*, Director General of Eurostat. He focused on the complexity of the European institutional setting in the area of the statistics and the need for a politically and operationally adequate structure with a clear attribution of responsibilities and room for an open debate. He did not doubt that the present cooperation and collaboration would continue to improve as it had done in recent years.

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3   See, http://www.ecb.europa.eu/stats/html/sqf.en.html

The first paper of the third session, *The role of networks and competence centres in the development, production and dissemination of statistics*, was presented by *Walter Radermacher*, President of Statistisches Bundesamt (the German statistical institute), who referred to the outstanding role of communication between the ESS and the ESCB in order to share work more efficiently. He was convinced that the ESS must adjust to the generally rising demand for short-term and structural data, which is however accompanied by a tightening of the resources. This may be facilitated through European Centres and Networks of Excellence (ESSnet) and by implementing the work-sharing model which had already been introduced within the German statistical system. The current financing arrangements limited the ESSnet projects to the examination of methodological aspects or the testing of new data collection methods, while leaving them unsuitable for actual production sharing. Better alternatives should accompany the cooperative system structure to be set up. Future ESSnet projects might deal with, for example, the implementation of the so-called SDMX (Statistical Data and Metadata eXchange) and the development and joint use of IT tools. In addition, at the European level he favoured moderation in adopting legal provisions, quality assurance through standards and best practices, joint training for statisticians, and, above all, 99% instead of 100% comparability of statistics.

He then sketched the German cooperation model among its federal and regional statistical offices, which had given an enormous impetus to modernisation through regional work-sharing and specialisation and had increased the productivity of official statistics. Centralised IT production and data storage had allowed the statistical offices to concentrate more on presentation and analysis, as well as on the dissemination of results and communication. However, adequate training remained essential.

The second presentation in this session, *Central banks and statistical offices: avenues for further cooperation*, by *João Cadete de Matos*[4] (Director of Statistics, Banco de Portugal) stressed that institutional cooperation, at both the national and international level, fosters the efficient compilation and dissemination of top-quality statistics. For instance, it helps to improve the coherence of the data, which in turn facilitates the integration of data from various sources. At the national level, this requires a clear division of work; a framework for adopting common methodologies and nomenclatures and for sharing registers and administrative data; and an appropriate interaction between producers and users of statistics. At the international level, central banks and statistical offices need to cover the whole statistical spectrum, using a common world-wide statistical language, and be more proactive in order to identify the likely changes. In Portugal, the new law on the National Statistical System foresees close coordination, particularly between the Banco de Portugal and the Portuguese national statistical office, and, as a consequence, relevant data are now collected only once.

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4   The paper was jointly written by him and *Manuel Sebastião*, former Member of the Board of the Banco de Portugal.

In the future, compilers of statistics should consider being more proactive and outward-looking by: 1) further deepening the national and international institutional cooperation, particularly concerning the exchange of information for statistical purposes, 2) attempting to identify economic changes and to understand their measurement impact as early as possible, 3) promote mutually beneficial relationships with both users and data providers, 4) increasing the technical skills and the conceptual and analytical capabilities of staff, and 5) defining a communication strategy to match users' expectations and to convert data into knowledge.

The discussant *Heli Jeskanen-Sundström*, Director General of Statistics Finland, focused on future collaboration between the ESS and the ESCB. Such collaboration should recognise both the differences in governance and the scope of their statistics, and the similarities in their general goals and priorities and in the importance they attach to credibility and integrity. The most strategic issues relate to relevance (e.g. meeting new challenges proactively and flexibly), efficiency (relating to e.g. SDMX, the ESS regulatory policy and common definitions, classifications and business registers), a low response burden (through e.g. the exchange of confidential data) and quality (through e.g. more joint research, expert mobility and training, and also involving the highly respected Committee on Monetary, Financial and Balance Statistics, or CMFB). She advocated that regular high-level stakeholder meetings are held between the ESS and the ECB. This would improve the ESS's ability to deal more proactively with new statistical challenges and strengthen the useful cooperation between the ESS and the ESCB.

The final session, *How best to communicate European economic and financial statistics*, was chaired by *Steven Keuning*, ECB Director General Statistics and Chairman of the Statistics Committee. He invited the audience to consider how to utilise IT tools to present data dynamically to target groups, how to segment the target groups of statistics, and how to address them. To do so, he recommended stepping up communication efforts, mainly towards the media, taking advantage of fast sprouting electronic networks, and creating a brand for official statistics so that data analysis is seen as more efficient, interesting and rewarding.

Looking at *Improving public trust in official price statistics*, *Inna Šteinbuka*, Director of Economic and Regional Statistics at Eurostat, noted that developments in perceived inflation as derived from consumer surveys seem to show persistent deviations from the HICP developments. This can affect consumption decisions, inflation expectations, support for the single currency among euro area citizens and public trust in Eurostat's capacity to accurately measure consumer price developments. Improving the confidence in and understanding of official inflation figures should be done by providing more useful and detailed statistical information on inflation measurement and by consistent, clear and coordinated communication on inflation and its measurement. There was no point in simply contradicting citizens or telling them that they are wrong when they claim that inflation is higher than officially measured, if only because consumption baskets vary.

Eurostat must ensure that the national HICPs comply with the methodological requirements and that good practices concerning e.g. quality adjustment methods are followed up elsewhere. It also plans to broaden the range of price statistics it provides, including average prices for a limited number of well-defined goods, house price indices and more detailed price indices, including a new HICP aggregate covering Frequent Out-Of-Pocket Purchases (FROOPP[5]). Eurostat also envisages various communication actions in this field, some involving the ECB and the Commission's DG ECFIN. This includes the publication of additional information on the HICP, e.g. in more accessible special press releases; the development of more user-friendly websites; and the use of internet technologies to improve data presentation and to answer inflation-related queries. This should of course be underpinned by monitoring and further improving the quality of the HICP itself.

Subsequently, *Enrico Giovannini*, Director of Statistics in the Organisation for Economic Co-operation and Development, in *The role of communication in transforming statistics into knowledge* focused on the development of web 2.0 in which information is not only consumed but also transformed, by means of 'collective intelligence'. Moreover, rethinking the communication of statistics was key to the success or failure of an official data provider. He then raised three issues: first, the way in which statistics are used and perceived by users (especially citizens) depends on several factors and some of them are not under the control of the original source; second, in several countries the situation is far from satisfactory, in terms of trust in and communication of official statistics; and third, statisticians have to address these issues very seriously if they wish new generations to look at official statistics as an authoritative source. Legitimacy, trust, authority and credibility of statistics providers will become much more important in a world overloaded with information.

The paper then dealt with the way in which information was spread in society: 1) the amount of news released by the media plays a key role in affecting what people know, 2) the quality of media and their way of presenting information can make a huge difference and 3) the person's interest in the subject also plays a key role in activating the cognitive mechanism. Statistical data providers rely heavily on mass media. So, was there an alternative? He concluded that web 2.0 was producing a revolution. Consequently, statistical offices should become "knowledge builders" for the whole society, not only by making their websites very accessible, but also by improving the graphical display of their data, facilitating country comparisons, uploading their data in general web 2.0 platforms and creating discussion sites about the quality of data used in the public domain, also enabling their improvement.

The discussants, *Evan Davis*, Presenter, BBC Radio 4's "Today" programme, and *Patrick Lane*, Deputy Business Affairs Editor of the Economist, perceived

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5   The composition of the aggregate includes food; beverages; tobacco; personal cleaning, recreational and cultural services; personal and home care; books, newspapers and periodicals; medicine; recording media; stationery; postal services; fuel; parking; public transport and pets-related services.

two common threads connecting both papers: the importance of trust in and an adequate communication of official statistics.

Evan Davis took three lines of argument: perception, suspicion and communication. First, when there is a gap between public perceptions of something and the official data, the duty of the statistician is not to immediately dismiss this as a public misperception, but to treat it as potentially an interesting piece of information meriting research and possibly an adaptation or extension of the existing statistics. It is also important to be aware that perceptions are anchored in the past and tend to lag reality. Moreover, they are selective: for instance, inflation perceptions may focus more on necessities and less on things people can choose not to buy. Second, on suspicion, if politicians appear to be *producing* the statistics that make the case they want made, statistics will get a bad name. The important point for statisticians is that not only must they be independent but they should also get the message across that they are so. Third, on communication, the response to misperceptions is to appear to be as genuinely honest and objective as possible and open to the alternative interpretations. Only when you are trusted will you usually get your way.

When discussing the HICP paper, *Patrick Lane* noted, first, that the inflation rate which survey respondents perceive need not correspond to that measured by the rate of increase of the HICP; second, that excluding housing costs from Eurostat's standard measure of inflation, whatever the difficulties in measurement, has always seemed anomalous; and third, that publishing extra price indices risk causing confusion, but this risk may be bearable. Concerning the internet revolution, he was convinced that most of the communication of official statistics will remain indirect, through TV, the print media and news websites. This is because people want the data to be not only filtered, but also interpreted. As a print journalist, he said that statistics were the evidence from which a story was constructed, while at the same time they illustrate (and decorate) the writing: charts can convey information succinctly and should be capable of being understood without their surrounding text. Advances in information technologies mean that it is much easier to get our hands on useful data much more quickly, but also that it is all the more important to add value to the data, in analysis and interpretation.

The closing address of the Conference, *A strategic vision for statistics: challenges for the next ten years*, was delivered by *José Manuel González-Páramo*, Member of the ECB's Executive Board. He first highlighted three major developments: 1) globalisation and the concomitant difficulty of relying on standard analytical tools, based on regularities in a less globalised world, and on conventional information sets, 2) the IT revolution and its impact on both the technical possibilities and the costs of statistics and 3) constraint of the statistical response burden. He then related these developments to the four Conference themes.

Addressing the first theme, he said that the need to analyse economic and financial developments in real time has led to an increasing demand for a broad set of timely and yet sufficiently reliable, mutually-consistent statistics which also show a history of at least two business cycles. Globalisation has also created

a requirement for comparable key macroeconomic statistics among major economic areas and for world-wide aggregates with regional breakdowns, for instance quarterly world GDP statistics with a timeliness of 60 days. Within the euro area, further improvements in timeliness should be achieved for the very valuable integrated euro area accounts, which should become available within 90 days, and for GDP. Concerning the latter, he would welcome a serious study on the possibility of releasing a flash estimate within 30 days.

On the second theme, he illustrated the implications of the Governing Council's strategic long-term vision for Eurosystem statistics by means of the Centralised Securities Database. This is a reference micro-database for individual securities that is jointly maintained by the ECB and the NCBs. It should become the single source for all European and national securities issues statistics and for all other statistics that use those data as an input and should be accompanied by security-by-security data collection on the holdings of securities set up by the NCBs. This requires an even closer cooperation within the ESCB. In general, micro-information, such as information on individual securities, individual loans or individual statistical units may be aggregated in multiple ways which will also allow a timely statistical response to new and unexpected policy issues.

On the third theme, he praised the successful cooperation of the statistical community in Europe and noted that the current coordination arrangements for official financial statistics are still somewhat dispersed on a world-wide level. He expressed his support, therefore, for the initiative of, in particular, the BIS, the ECB and the IMF to establish an international network on financial statistics.

Finally, concerning the fourth theme he announced that a new dedicated section of the ECB website devoted to inflation measurement is under development. Moreover, he considered a credible track record of reliable official statistics – beyond the measurement of inflation – to be of utmost importance.

Day 1 - Thursday, 24 April

13:15 – 14:30	Registration and coffee
14:30 – 15:30	Opening remarks: **Jean-Claude Trichet** (President, European Central Bank)
	Keynote speech: **Joaquín Almunia** (Commissioner for Economic and Monetary Affairs, European Commission)
15:30 – 17:00	**Session 1: The role of harmonised monetary, financial and economic statistics in monetary and other economic policies**
	Chair: **Axel A. Weber** (President, Deutsche Bundesbank)
	The contribution of monetary and financial statistics to the conduct of monetary policy
	Jürgen Stark (Member of the Executive Board, European Central Bank)
	The contribution of interest rate statistics for the monitoring of the integration of EU banking markets
	Giuseppe Zadra (Chairman, European Banking Federation Executive Committee),
	Discussant: **John Hurley** (Governor, Central Bank and Financial Services Authority of Ireland)
	Discussion
17:00 – 17:30	Tea break
17:30 – 18:30	**Session 2: Future directions for the collection and compilation of statistics**
	Chair: **Miguel Fernández Ordóñez** (Governor, Banco de España)
	Torn between new data needs and respondents' fatigue – are efficiency gains the philosopher's stone?
	Klaus Liebscher (Governor, Oesterreichische Nationalbank),
	Discussant: **Athanasios Orphanides** (Governor, Central Bank of Cyprus)
	Discussion
	End of first day
20:00	Intercontinental Hotel
	Dinner hosted by **José Manuel González-Páramo** (Member of the Executive Board, European Central Bank)
	Keynote speech: **The crucial role of statistics for central banks: present and future**
	Stanley Fischer (Governor, Bank of Israel)

Day 2 - Friday, 25 April

08:15 – 9:15 Registration and coffee

9:15 – 10:45 **Joint ECB/European Commission (Eurostat) Session**

Session 3: Future coordination and collaboration strategies in the area of statistics

Chair: **Hervé Carré** (Director General, Eurostat),

The role of networks and competence centres in the development, production and dissemination of statistics

Walter Radermacher (President, Statistisches Bundesamt),

Central banks and statistical offices: avenues for further cooperation

Manuel Sebastião (former Member of the Board, Banco de Portugal) and **João Cadete de Matos** (Director, Statistics, Banco de Portugal),

Discussant: **Heli Jeskanen-Sundström** (Director General, Statistics Finland),

Discussion

10:45 – 11:15 Coffee break

11:15 – 12:45 **Session 4: How best to communicate European economic and financial statistics**

Chair: **Steven Keuning** (Director General, Statistics, European Central Bank)

Improving public trust in official price statistics

Inna Šteinbuka (Director, Economic and Regional Statistics, Eurostat),

The role of communication in transforming statistics into knowledge

Enrico Giovannini (Director, Statistics, Organisation for Economic Co-operation and Development),

Discussants: **Evan Davis** (Presenter, BBC Radio 4's "Today" programme), **Patrick Lane** (Deputy Business Affairs Editor, The Economist),

Discussion

12:45 – 13:15 Concluding remarks: **José Manuel González-Páramo** (Member of the Executive Board, European Central Bank)

13:15 End of Conference

A STRATEGIC VISION ON EURO AREA STATISTICS: THE ECB'S VIEW

JEAN-CLAUDE TRICHET

Colleagues, fellow central bankers, ladies and gentlemen,

I would like to welcome all of you most warmly to the Fourth ECB Conference on Statistics.

This Conference continues our tradition of regular high-level dialogue between the compilers and users of statistics, including policy-makers, analysts, academics, the media and the financial industry. At the same time, this provides us with an excellent opportunity to take stock of the progress achieved concerning the availability and quality of euro area statistics and exchange views on the strategic vision for their further development. While much has been achieved over the past ten years and ECB statistics are widely used, euro area statistics should keep pace with the rapidly changing economic and financial landscape in Europe, to meet new needs, for instance in relation to the ongoing financial turmoil, and to be produced by means of a highly efficient production network, so that costs and response burdens are kept to a minimum.

A particularly successful feature of the recent rapid enhancement of euro area statistics is the very close collaboration between the ECB, notably its Directorate General Statistics, and the European Commission, notably Eurostat. This is mirrored by the fruitful cooperation between the statistical departments of national central banks (NCBs) and national statistical institutes (NSIs), both at the national and at the European level, for instance in the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB). For this reason, I am particularly pleased that Commissioner Almunia has kindly accepted our invitation to give the keynote speech at this Conference and that the programme includes a session organised jointly by Eurostat and the ECB's Directorate General Statistics and chaired by Mr Carré, the Director General of Eurostat.

I would like briefly to consider three issues:

1. recent enhancements to euro area statistics from the ECB's perspective as a policy-maker;
2. the importance of the appropriate communication of statistics; and
3. the strategy for the further development of euro area statistics.

I   RECENT ENHANCEMENTS TO EURO AREA STATISTICS FROM THE ECB'S PERSPECTIVE AS A POLICY-MAKER

First of all, I would like to reiterate that reliable and timely euro area economic, monetary and financial statistics are of paramount importance for the ECB's

decision-making. This applies not only to the single monetary policy, but also to the other ESCB tasks, including those in the areas of financial stability and payment systems. Statistics are themselves one of the main deliverables of the ECB, providing market participants, analysts, academics, the media and the general public with the aggregate financial data they need. For instance, the harmonised national average interest rates on the deposits and loans of households and corporations that are published every month by the ECB and the NCBs provide citizens and firms with very useful preliminary insights.[1]

Concerning the key developments in ECB statistics over the last two years, I would like to highlight the following:[2]

1. Since June of last year the ECB and Eurostat have jointly compiled and published quarterly euro area accounts.[3] These accounts can be considered the "national accounts" for the euro area and provide a complete and consistent overview of its economic, financial and monetary developments. A fairly unique feature of the euro area accounts is their almost entirely consistent representation of "real" and financial developments, which greatly facilitates integrated analyses and permits further enhanced cross-checking of the economic and monetary analyses that feed into the overall assessment of the ECB's monetary policy stance.

The euro area accounts record not only the economic and financial transactions, but also the financial balance sheets of all institutional sectors (i.e. households, non-financial corporations, financial corporations and general government). They integrate and complement more timely and frequent statistics, for instance by providing a sectoral breakdown of the broad monetary aggregate M3 and by providing hitherto unavailable quarterly data on household and corporate income, expenditure, savings and wealth.

2. Since July 2007 the ECB has estimated daily yield curves reflecting the implied market remuneration rates of euro area central government bonds for residual maturities ranging from 3 months to 30 years. These curves help to gauge market expectations regarding economic and financial activity, as well as being used for monetary policy purposes. The curves are presented in a very user-friendly way, using the latest web technologies.[4]

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1   See http://www.ecb.europa.eu/stats/money/interest/interest/html/index.en.html.
2   An updated overview of all available ECB statistics has recently been published. See http://www.ecb.europa.eu/pub/pdf/other/ecbstatisticsanoverview2008en.pdf.
3   See "The introduction of quarterly sectoral accounts statistics for the euro area" in the November 2007 issue of the ECB's Monthly Bulletin; "Recent developments in the household and corporate sectors: information from new quarterly euro area sector accounts" in the June 2007 issue of the ECB's Monthly Bulletin; and "New estimates on holdings by sector for euro area M3" in the December 2007 issue of the ECB's Monthly Bulletin.
4   See http://www.ecb.europa.eu/stats/money/yc/html/index.en.html#data. The yield curves and their use are explained in "The new euro area yield curves" in the February 2008 issue of the ECB's Monthly Bulletin. Previously, Eurostat compiled these curves.

3. The available monthly statistics on outstanding amounts of Short-Term European Paper have been supplemented with daily statistics on yields. This has enabled the ECB to ensure transparency while respecting the confidentiality of individual price or yield data.

4. The external statistics of the ECB now provide separate data for Brazil, Russia, India, mainland China and Hong Kong as counterparts. Moreover, they also show the quarterly changes in the overall external position of the euro area, broken down into transactions, exchange rate changes, asset price changes and other changes.[5] Finally, since the end of 2006 the ECB has published monthly harmonised competitiveness indicators for all euro area countries.[6]

5. Payment statistics have also been enhanced, and new data on securities trading, clearing and settlement have been made available.[7]

6. Last but not least, Slovenia was successfully integrated into the euro area statistics in 2007, with the same happening for Cyprus and Malta in 2008. When countries join the euro area, all time series need to be recalculated in order to reflect the new composition of the euro area. At this juncture, I would also like to compliment the statisticians in the various EU countries on the outstanding work that they carry out, in coordination with the ECB and Eurostat, to meet the ECB's statistical requirements.

For its policy-making, the ECB relies not only on its own statistics, but also on euro area data compiled by Eurostat and the NSIs. In particular, the ECB attaches considerable importance to the reliability and timeliness of the so-called Principal European Economic Indicators (PEEIs), which comprise the indicators for core consumer prices, national accounts, short-term business, labour markets and external trade. In November of last year the ECOFIN Council recognised that, in general, the timeliness targets set in 2002 had now been achieved for the majority of the PEEIs and invited Eurostat and the ECB to review the scope, timeliness and quality of the PEEIs, also in the light of the evolving needs of users. This brings me to the important issue of the communication of statistics.

2   THE IMPORTANCE OF THE APPROPRIATE COMMUNICATION OF STATISTICS

Communication with the general public and financial markets is crucial for any central bank because it helps to enhance the effectiveness of monetary policy. Euro area statistics play an important role in the ECB's communication, and it is

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5   See "Explaining changes in the net international investment position of the euro area" in the January 2007 issue of the ECB's Monthly Bulletin.
6   See "The introduction of harmonised competitiveness indicators for euro area countries" in the February 2007 issue of the ECB's Monthly Bulletin, and http://www.ecb.europa.eu/ stats/exchange/hci/html/hci_2008-01.en.html.
7   See "Review of statistics on payments and securities trading, clearing and settlement" in the January 2008 issue of the ECB's Monthly Bulletin.

therefore of great importance to the ECB that these statistics be highly credible and very accessible.

In total, the ECB publishes around 70 statistical press releases per year, including *monthly* monetary statistics and data on interest rates, securities and the balance of payments; *quarterly* euro area accounts and statistics on investment funds and the international investment position; and *annual* payment statistics and general data on monetary financial institutions. Even more detailed and more frequent statistics are made available on the ECB's website. In other to enhance the accessibility of its statistics, the ECB launched its online Statistical Data Warehouse in 2006.

Maintaining the public's confidence in the ECB statistics requires high-quality standards. Such standards were set out in a recently published framework governing the quality of ECB statistics.[8] In addition, in the performance of their statistical tasks, both the ECB and the NCBs adhere to the statistical principles and ethical and quality standards set out in their "Public commitment with respect to the ESCB's statistical function".[9] The independence granted to the ESCB by the Treaty means that there is no political interference in the compilation and dissemination of statistical information. Similarly, the Treaty states that compilers of statistics in the NSIs and Eurostat should also act in full scientific independence.

In addition to these essential preconditions, statistics also need to be adequately explained. This applies, in particular, to one of the most important statistics for the ECB's monetary policy-making, namely the Harmonised Index of Consumer Prices (HICP). It is a well-known fact that the qualitative responses to the European Commission's monthly consumer survey on inflation perceptions tended to indicate an upward trend following the introduction of the euro banknotes and coins in 2002, while the HICP exhibited a fairly stable rate of change.[10] Perceptions of inflation then tended to moderate, with renewed increases being observed as of mid-2007, increases which on that occasion coincided with a rise in the annual HICP inflation rate. However useful this perception indicator is, it should be borne in mind that perceptions may be based on a partial inflation concept that places too much weight on frequent and out-of-pocket purchases such as food and petrol – for which above-average price increases have been observed – and does not take full account of other less frequent purchases and quality improvements. If only for that reason, the HICP inflation rate, which is derived from no less than 1.7 million price observations in 200,000 shops throughout the euro area every month gives an objective representation of the evolution of prices.

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8   See http://www.ecb.europa.eu/pub/pdf/other/ecbstatisticsqualityframework200804en.pdf.
9   See http://www.ecb.europa.eu/stats/html/pcstats.en.html. Both this commitment and the framework governing the quality of ECB statistics take due account of the European Statistics Code of Practice for the national and Community statistical authorities, while also reflecting the specific governance structure of the ESCB.
10 See "Recent developments in consumers' inflation perceptions and expectations in the euro area" in the November 2007 issue of the ECB's Monthly Bulletin.

3   THE STRATEGY FOR THE FURTHER DEVELOPMENT OF EURO AREA STATISTICS

The ECB's vision for euro area statistics envisages both product and process innovations. The former include the closing, in the near future, of some of the remaining gaps in the ECB's statistics. This will involve:

1. enhancing the timeliness, completeness and consistency of the quarterly euro area accounts, so that they become available within 90 days of the end of the reference period;

2. compiling more accurate, frequent and timely statistics on assets and liabilities of investment funds from early next year (based on an ECB Regulation adopted in July 2007);

3. compiling frequent, timely and harmonised statistics on insurance corporations and pension funds, which will become increasingly important in our ageing society;

4. compiling comprehensive statistics on the securitisation of bank loans and the financial vehicle corporations which handle these securitisations, as well as improving the measurement of credit risk transfers, including credit default swaps, in close cooperation with bank supervisors;

5. enhancing statistics on bank credit lines, bank balance sheets and interest rates on deposits and loans, for instance by gaining more insight into loan collateral; and

6. looking at user requirements for micro-data, for example for household consumption and finance.

In addition, the ECB has the following high-priority requirements concerning the euro area statistics compiled by Eurostat and the NSIs:

a) more comprehensive and timely statistics on services, labour markets and housing markets;

b) better use of available data through the compilation of regular euro area supply and use tables and the integration of labour accounts into the national accounts, which are needed both for productivity and growth analysis and for updating the EU-KLEMS data; and

c) closer coordination of national statistics with regard to seasonal and working day adjustments, revision policies and release calendars.

As regards the process innovations, the Governing Council of the ECB last year endorsed a long-term vision for statistics produced by the Eurosystem:

– concerning input, the same data should be collected only once;

– concerning data processing, the Eurosystem's statistical function should operate as an efficient production network; and

– concerning output, the fitness for use of Eurosystem statistics and statistical communications should be further enhanced.

As regards the collection of data, the ESCB's Statistics Committee (STC) and Banking Supervision Committee (BSC) will, in cooperation with the Committee of European Banking Supervisors, look at means of better aligning supervisory and statistical concepts, definitions and reporting formats, with the aim of reducing the reporting burden for financial institutions in the case of overlapping data requirements. The STC will also investigate the feasibility of reusing and sharing available micro-data for Eurosystem statistical purposes – particularly data contained in central credit registers, central balance sheet offices and business registers – while maintaining strict confidentiality standards. Furthermore, it is considered best practice for a central bank to integrate the overlapping parts of the various statistics it produces and to concentrate the production of all of its statistics within a single statistical organisational unit.

As far as data processing is concerned, the feasibility of a move towards the consolidated or pooled collection and production of some types of Eurosystem statistics will be explored. In addition, NCBs are invited to exploit comparative advantages in their cooperation with other national statistical authorities,[11] for instance by setting up joint business registers. In this context, it is generally agreed that an enhanced exchange of confidential information between NCBs, the ECB, NSIs and Eurostat, strictly for statistical purposes, is indispensable in order to keep the response burden to a minimum and ensure the quality of both European and national statistics. It is therefore crucial that the updates of the two statistical framework regulations governing the collection, compilation and dissemination of European statistics – which are currently in the process of being prepared – allow the exchange of such micro-data while retaining strict confidentiality standards.[12]

Concerning its statistical output, the ECB is looking at ways of meeting the statistical needs resulting from the turmoil on the financial markets. First, it may be appropriate to investigate the merits and costs of further expanding the ECB's Centralised Securities Database (CSDB), which already contains reference information for several million different securities. In view of the ongoing financial turmoil, there may be increased merit in further investment in this database, adding, in the medium term, information on the holders of

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11 The distribution of labour between the ECB's Directorate General Statistics and Eurostat is laid down in a memorandum of understanding (http://www.ecb.europa.eu/ecb/legal/pdf/en_mou_with_eurostat1.pdf).

12 Council Regulation (EC) No 2533/98 of 23 November 1998 concerning the collection of statistics by the ECB (O.J. L318, 27.11.98, p.8) and Council Regulation (EC) No 322/97 of 17 February 2997 on Community Statistics (O.J. L52, 22.2.97, p. 1).

such securities and more detailed information on complex structured securities, including chains of securities and tranches of securities with different ratings.[13]

Secondly, the ECB could support ongoing market initiatives to improve transparency by offering its expertise in the international standardisation of definitions and classifications (looking, for instance, at how to define a covered bond, a mortgage prepayment rate or the residency of a bond issuer or holder, or considering ways of consistently classifying counterparties). This could include dialogue with the financial industry in the context of the possible enhancement – under consideration by the European Commission – of the supervisory disclosure requirements under the so-called Pillar 3 of the Capital Requirements Directive so that the information to be disclosed is based on clear definitions and reported in a standard format and with sufficient frequency and timeliness.

Thirdly, as regards the Short-Term European Paper market, the ECB is also involved in the actual compilation and publication of relevant statistics, and such transparency may come at a premium in the current circumstances.

In general, more statistical data may be collected by NCBs on an ad hoc basis, from selected key players, for instance in relation to particular types of financial innovation. I also invite the STC to contribute to the enhancement of the financial literacy of euro area citizens and to further improve the accessibility of its statistics for specific target groups.

4   CONCLUSIONS

European policy-makers need to have at their disposal a wide array of timely, high-quality statistics on which to base their decisions. The availability and quality of genuine euro area statistics – i.e. those which are more than just the sum of the national data of the Member States – has improved very substantially over the last ten years. Most notably, the ECB and Eurostat now regularly and jointly release quarterly real and financial euro area accounts that are both integrated and comprehensive. And yet, I would strongly favour an improvement in the timeliness of such releases, which would then be even more useful for the ECB's monetary policy-making.

The credibility of euro area and relevant national statistics is of key importance to the ECB, and this also requires that such statistics be effectively communicated. This applies in particular to the HICP.

In view of the importance to the ECB of euro area monetary, financial and external statistics, the Governing Council has endorsed a strategic vision that

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13 The CSDB already enables the estimation of aggregate information on total issuance and outstanding amounts for all kinds of securities. However, the quality management for this database, which is provided by ESCB central banks in cooperation with a number of other institutions, is still in its infancy and is currently focused on securities needed for specific statistics.

should further increase the effectiveness and efficiency of the compilation of these statistics by the Eurosystem. This entails even more intensive cooperation not only among the statistics departments of the NCBs and the ECB, but also between those departments and external parties such as statistical institutes, supervisors and the financial industry. I hope that the gains resulting from these synergies will then be used to close some of those gaps in the ECB's statistics that I mentioned earlier and to improve market transparency as regards the issues that have come to the fore in the ongoing financial turmoil.

All of these issues will be looked at during this Conference, with contributions by both users and producers of statistics. This will certainly make an important contribution to the design and implementation of the ECB's strategic vision on euro area statistics. I would therefore like to thank you all very much in advance for your participation and attention.

EUROPEAN CENTRAL BANK

EUROSYSTEM

EUROPEAN ECONOMIC STATISTICS: ACHIEVEMENTS AND CHALLENGES

JOAQUÍN ALMUNIA

President, Ladies and Gentlemen,

It is my great pleasure to join you here in Frankfurt today. I would like to thank President Trichet and the European Central Bank for inviting me to discuss the main achievements and challenges in the field of European statistics.

Statistics form the bedrock of sound economic policy decisions. They are vital at every stage of the policy-making process. And especially so in the European Union. The major achievements of European economic integration, such as the introduction of the euro or the 2004 enlargement, would not have been possible without reliable, harmonised European data.

Statistics support progress, but they themselves must also respond to a changing political context, in order to remain relevant and meet the needs of users.

Therefore, I want to talk about the need to develop our statistical system to meet new trends and challenges over the coming decade. But before I do, let me take a moment look back at a decade of progress in European statistics.

A DECADE OF PROGRESS IN EUROPEAN STATISTICS

Close to ten years ago, in May 1998, the historic decision was taken that eleven Member States had met the conditions to participate in the final stage of Economic and Monetary Union. The following month, the ECB was launched. And half a year later, on 1 January 1999, the euro became the common currency of those countries.

This momentous decision could not have been taken without reliable and harmonised statistical information. But, with the foundation of EMU it soon became evident that new statistics for the euro area as a whole would be necessary.

Already, early in stage three of EMU, a number of important statistical gaps had been identified. An Action Plan on EMU Statistics was devised in 2000 which identified five priority areas for urgent progress. These were:

(i) quarterly national accounts; (ii) statistics on public finances; (iii) labour market statistics; (iv) short-term business statistics; (v) balance of payments and trade.

The Action Plan boosted the development of short-term economic statistics in the euro area. At the same time it became clear that the timeliness of statistics from some Member States needed to be improved.

Therefore, to match best practices worldwide, a more focused list of infra-annual macro-economic indicators was identified in 2003. For these indicators – the Principal European Economic Indicators – more challenging target release dates and quality objectives were set up. This also helped move the focus from a Member State perspective towards a European aggregate perspective.

The approach was an innovation in the way we derived European short-term indicators, but it also required a stronger and more efficient coordination of statistical information and compilation practices at the European level.

Last November, the ECOFIN Council concluded that the vast majority of objectives set out for the Principal European Economic Indicators had been reached. For example, early release of GDP and HICP flash estimates are now well established, and the timeliness and availability of other relevant indicators have improved considerably.

Much of the progress in recent years has resulted from enhanced cooperation between Eurostat and the national statistical institutes, as well as the ECB and the 27 national central banks.

Achieving efficiency in such a complex framework is not easy. The fact that the European Statistical System manages to deliver high quality and timely statistics – that underpin successful policy making in EMU and the EU as a whole – reflects the strong commitment and collective efforts by all partners.

Our achievements in this field should now lead us to widen the scope for improving the available statistics beyond the indicators and the targets set in the 2000 Action Plan.

FUTURE CHALLENGES FOR STATISTICS

This is especially true since statistics have to keep up with the rapid changes of the modern era. Our economies and societies are constantly faced with new challenges and these need to be reflected in statistical data, and presented to users in an accurate, relevant and reliable way.

Developing statistics that accurately reflect these new challenges and trends requires keeping abreast of latest developments. In some cases a growing public debate – for example on climate change or immigration – will guide the allocation of resources for statistical development. Often it is users who draw attention to new phenomena, whether through policy needs or through their ongoing dialogue with statisticians.

Alternatively, the regular compilation of statistical data will sometimes raise questions – such as how do we record this phenomenon and what information are we missing? In other cases, we may see non-official data sources emerging to meet the needs of users, highlighting gaps in official statistics which may need to be closed.

Some issues often appear in one or a limited number of countries initially, but then quickly spread to others. And many new challenges, for example climate change and economic globalisation, do not stop at national borders and demand the preparation of comparable data across countries.

We must continuously adapt our statistics to these new phenomena, keeping in mind that the preparation time for a new statistical dataset can be measured in months or even years, and economists frequently want long time series of comparable data. Even changes to existing statistical frameworks take time.

All this means that we have to "keep our fingers on the pulse" to anticipate future user needs. Given the international character of most of these issues, Eurostat and other international statistical agencies will play an important role in identifying and responding to relevant phenomena.

In the area of economic statistics, we can identify some pressing issues that will demand attention in the coming years.

Phenomena which in the past have been considered just "economic externalities", and hence measured in satellite accounts or not at all, are becoming "internalised" in traditional measures of economic activity. The "intangible" aspects of the economy are growing in importance and must be adequately measured – I will come back to this in a minute.

Sustainability – whether we are referring to public finances in the face of ageing populations or, more generally, economic activity in the face of resource depletion – is climbing higher on the agenda and drawing statisticians into ever closer cooperation with economists.

The lively debate at the "Beyond GDP" Conference last year highlighted the nature of the work ahead of us. With social and environmental concerns coming to the fore, the calls for indicators that will complement GDP by measuring the developments that this measure glosses over – such as individual welfare, environmental damage and social inequality – are growing louder.

We are beginning to make headway. Eurostat has developed structural indicators covering domains like employment, research and social cohesion that measure our progress towards the goals of the Lisbon Strategy for Growth and Jobs.

We are developing indicators to monitor the EU's Sustainable Development Strategy, our approach to reconciling economic development, social cohesion and protection of the environment.

We are also working on developing an equivalent to the European System of National Accounts in the field of environmental issues. However, we still have a long way to go before we have established comprehensive and universally accepted indicators to measure well-being.

The globalisation of the production process is also posing increasing challenges to statistics. Measuring national economies or trade becomes more complex when a product is designed in one country, patented in another, and then produced and assembled in several different locations. All this even before the same product is sold worldwide with financing raised in yet another country.

Work is already underway that will allow statistics to address the fluid flow of products and intellectual property. Moreover, in a world of global supply chains, we can expect that the need for monitoring multinational companies across borders will become increasingly important. With this in mind, Eurostat has launched two initiatives – the Eurogroups Register project and the Foreign Affiliates statistics – which are geared towards collecting data on the activities of foreign-owned enterprises operating in the European market.

To mention just two more issues, financial markets will likely remain highly innovative, even if the recent turmoil has shown the limits of some innovations, and the rate of product development in European markets will require continued efforts to keep providing a good measure of quality changes when compiling the Harmonised Index of Consumer Prices.

Important issues are also emerging in other statistical areas, reflecting the evolving interests of European citizens and the EU policy context – for example population issues such as immigration, or data on crime and national security.

Clearly, the way in which the economy functions has altered substantially. The increasing role of intangible assets, the reinforcement of information and communication technologies in productive processes, the expansion of service and financial activities, the globalisation of economic activities as well as the changes in the social protection schemes; all this requires adjustments in the way in which macroeconomic aggregates are compiled and accounted for.

UPDATING THE SYSTEM OF NATIONAL ACCOUNTS AND IMPLICATIONS FOR ESA

The emergence of new statistics in different areas and their growing interaction across policy domains highlight the issue of how indicators are set in relation to one another.

For that purpose, we have been benefiting over the last decade from the national accounts framework. The latter has been – and will continue to be – a very important reference for our statistical activity because it offers a consistent and complete framework of macroeconomic concepts – concepts which are also harmonised with those of other social, economic, and environmental statistics.

From a European perspective, the introduction of the existing European System of National Accounts – which is based on the international System of National Accounts – has contributed significantly over the past decades to the development of high-quality, harmonised, European statistics.

Much of the success is due to the close cooperation between the European Commission and the Member States, as well as a very fruitful cooperation between the Directorate General Statistics of the ECB and Eurostat.

The System of National Accounts has, since its last update in 1993, proved to be a robust framework, widely accepted and appreciated at the global level. However, following a request by the United Nations Statistical Commission in 2003, the international System of National Accounts, SNA 93, is currently being updated.

The objective is to bring this essential international statistical standard more in line with the new economic environment, and more up to date with advances in methodological research and the needs of users. The Statistical Commission considers consistency with international guidelines on other statistics a major requirement. In fact, the need for international comparisons in statistics grows more pressing as the interlinkages between the world's regions become stronger and more numerous.

The SNA update represents a very important project with far-reaching implications. Not only will the outcome set up the national accounts standards for many years, it will have a major impact on the European System of Accounts.

Indeed, the changes to the SNA will need to be incorporated into ESA 95 so that it remains as consistent as possible with the new SNA. The new ESA will continue to be the methodological reference for the statistical aggregates used in major EU policies, including the so-called own-resource gross national income, public deficit and debt for the excessive deficit procedure, and gross domestic product used for structural funds.

The Inter-Secretariat Working Group on National Accounts was given the mandate to manage the SNA project. Eurostat took over the rotating chair of the Inter-Secretariat in 2008 and aims to bring the project to a successful and timely conclusion, ensuring close coordination with all partners in the statistical community to achieve the highest level of international comparability.

The European Statistical System already coordinates its work with international organisations such as the OECD, the IMF and the World Bank, and is an important global player in its own right.

All in all, the enlarged European Statistical System consists of roughly 55 countries – over one-quarter of the total membership of the United Nations.

This stresses the importance of the European Statistical System as a key pillar in the international statistical system. It bears a heavy responsibility in setting standards and guidelines both on procedures and methods as well as on the

quality of statistics. In light of this, there is a scope to increase our representation at the global level.

STRENGTHENING GOVERNANCE IN PARALLEL

So far I have outlined some key challenges facing modern statistics and the changes underway to meet the demands of a changing economic and social environment.

Rising to these new challenges will also demand a strong governance structure. After all, setting priorities for statistics and directing scarce resources to new areas will be just as important as the practical work on methodology and compilation.

Moreover, effective governance must ensure that European statistics are not only accurate and relevant, but independent and credible too. Without the trust of users, statistics cannot fulfil their role as an essential public service.

IMPROVING THE GOVERNANCE STRUCTURE FOR EU STATISTICS IS NOT A NEW TOPIC

The elaborate framework, shaped by numerous bodies and legislative initiatives, had worked rather well in the run-up to the euro and in the years immediately afterwards. But after we experienced some weaknesses a few years ago within the area of fiscal statistics, it became clear that we needed to further strengthen statistical governance via increased accountability and transparency.

In 2005 we adopted the European Statistics Code of Practice as a self-regulatory instrument. That same year, self-assessments were conducted by all Member States and Eurostat, and the European Statistical System committed to carrying out regular peer reviews. I have to say that this exercise has turned out to be very successful.

In addition, I am glad to tell you that last month the European Parliament and the Council agreed to establish both the European Statistical Governance Advisory Board (ESGAB), to monitor the implementation of the Code of Practice, and the European Statistical Advisory Committee (ESAC). Putting these new bodies into operation is now a high priority.

Furthermore, the revision of the basic legal framework for the production of European statistics that was proposed by the Commission last October is currently under discussion in the European Parliament and the Council.

I am convinced that this significant re-organisation of the governance structure for Community statistics will help strengthen the reliability of European statistics further, and enhance their accountability and transparency. I would like to take this opportunity to welcome the very supportive role that the European System

of Central Banks is playing in the process, and the continuous involvement of the ECB and national central banks in all of these initiatives.

CONCLUSION

Let me conclude.

I began by referring to events that took place 10 years ago as we Europeans were preparing the launch of the Economic and Monetary Union. Developments in EU statistics supported and made possible this historic advance in economic integration. Indeed, progress made in the field of European statistics over a fairly short period of time has been truly impressive.

However, the next 10 years promise to bring even greater challenges. Our economies and societies are in a state of rapid transition and we rely on statistical data to understand and respond to the new trends that are shaping the world we live in.

I am confident that the European Union, benefiting from the solid cooperation within its statistical community, will rise to meet these challenges. We will continue to produce accurate and relevant statistics that will help us predict, measure and manage the policy challenges of tomorrow. We will also continue to play a key role at international level to promote progress towards ever higher quality statistics.

Thank you for your attention.

Hurley

Weber

Zadra

I THE ROLE OF HARMONISED MONETARY, FINANCIAL AND ECONOMIC STATISTICS IN MONETARY AND OTHER ECONOMIC POLICIES

INTRODUCTORY REMARKS

AXEL A. WEBER

Ladies and gentlemen,

It is a pleasure to welcome you to this first session **on the role of harmonised monetary, financial and economic statistics in monetary and other economic policies**.

On the use of statistics in policy circles, Sir Winston Churchill once gave the following advice to a young man who wanted to enter politics:

I gather, young man, that you wish to be a Member of Parliament.
The first lesson that you must learn is, when I call for statistics about the rate of infant mortality, what I want is proof that fewer babies died when I was Prime Minister than when anyone else was Prime Minister.
That is a political statistic.

Sir Winston Churchill
British politician (1874 - 1965)

On the same note, I am sure all members of a monetary policy committee would like to see measured consumer prices increases to be in line with price stability during their terms in office.

To ensure that, central banks have been endowed with a high degree of independence.

However, policy independence is not an end in itself, but a means to foster monetary policy effectiveness in safeguarding price stability. This means that our analysis and communication should be as open and transparent as possible to guide public and market expectations.

But there is no good analysis without good underlying data.

Thus, for a proper conduct of monetary policy, good statistics are indispensable.

Reliable data are needed for all aspects of the Eurosystem's monetary policy strategy: monetary and economic analysis and our definition of price stability.

This is a point, I am sure, that will be filled in more detail by **Jürgen Stark** in his presentation about **"The contribution of monetary and financial statistics to the conduct of monetary policy"**.

Let me give you just one concrete example to show how the implementation of certain statistical concepts would – in my view – complete our current policy framework.

Developments in the housing markets have always been of particular interest to monetary policymakers. One of the key questions in this context concerns the conceptual treatment of residential property in general price measurement. For the monetary policy of the Eurosystem, the Harmonised Index of Consumer Prices (HICP) is the yardstick of price stability. Owner-occupied housing has hitherto not been included in the HICP. This is due less to any fundamental rejection than to problems regarding the availability and quality of the required data, as well as conceptual issues. Given the economic importance of owner-occupied housing, this is an unsatisfactory state of affairs which has to be remedied.

Here, I would argue in favour of pursuing a twin-track approach.

– Owner-occupied housing should be added to the HICP basket of goods in accordance with the net acquisition concept.

– Furthermore, work should be expedited on developing comparable, high-quality price indices for new and resold housing for the countries of the euro area.

– Such indices would be of major importance not only for monetary policy analysis, but also for financial stability issues.

Our second presenter, **Guiseppe Zadra**, acting as Chairman of the European Banking Federation Executive Committee, focuses on another issue that has been central to the monetary policy of the Eurosystem in recent years: **financial integration**.

– He takes up the issue of retail banking integration and its measurement by price or volume statistics.

– His paper presents a thorough consideration of financial integration measures based on price statistics (interest rates) and their shortcomings.

Our discussant will be **John Hurley** (Governor, Central Bank and Financial Services Authority of Ireland).

Jürgen, the floor is yours ………

THE CONTRIBUTION OF MONETARY AND FINANCIAL STATISTICS TO THE CONDUCT OF MONETARY POLICY

JÜRGEN STARK

Ladies and Gentlemen,

It is a great pleasure to contribute to this Conference. As the Executive Board member responsible for economics at the ECB, I am acutely aware of the dependence of the analysis underpinning our monetary policy decisions on the quality and breadth of the available statistics.

We all recall the famous aphorism – variously attributed to Benjamin Disraeli and Mark Twain – that "there are lies, damned lies and statistics". I trust that our discussions during this Conference will dispel the implied concern about the use of statistical information. After all, without high quality data, on what would analysis rest?

In my remarks today, I would like to highlight a number of important statistical requirements for the effective conduct of monetary policy, focusing in particular on the ECB's monetary analysis. Developing monetary and financial statistics is of course an important responsibility of the ECB itself, so there is an element of "keeping our own house" in order in what I will say. At the same time, I am aware that our need for high quality statistics places a burden on reporting agents – on banks, firms and households – at a time when they already face many other challenges.

MONETARY POLICY: OBJECTIVE AND STRATEGY

My contribution today takes as its starting point the primary objective of the ECB and its single monetary policy, namely the maintenance of price stability in the euro area.

In pursuit of this objective, the Governing Council follows its monetary policy strategy.

One crucial element of the strategy is the ECB's quantitative definition of price stability. I would like to first reflect briefly on some statistical issues behind our definition of price stability.

In 1998, the Governing Council defined price stability as a year-on-year increase in the Harmonised Index of Consumer Price (or HICP) for the euro area of below 2%. In 2003, the Governing Council confirmed this definition, while clarifying that it aimed for annual HICP inflation "below, but close to, 2%" over the medium term.

The HICP was chosen as the index used to define price stability because it is a state-of-the-art measure of the price of households' monetary consumption expenditures in the euro area. The HICP meets high standards as regards

credibility, accuracy and reliability. It is further available in a timely manner and at high frequency. These are crucial conditions a price index has to fulfil to adequately support monetary policy making.

Of course, improvement of the HICP along any of these dimensions is welcome, as it will deepen our understanding of price developments and improve the reliability of our definition of price stability.

At present, discussions are taking place about the possible extension of the HICP to include Owner Occupied Housing (OOH) costs. This could address one of the short-comings of the HICP, namely the exclusion of price changes for housing costs faced by home-owners.

However, including owner-occupied housing expenditures is likely to create measurement problems, as well as posing significant challenges to the timeliness and frequency of the extended HICP series. More importantly, some of the available statistical treatments of owner-occupied housing costs would introduce an asset price or interest rate component into the price index, which could be conceptually problematic for the conduct of monetary policy.

An in-depth technical analysis of various approaches to including owner-occupied housing expenditures in the HICP is ongoing. It is still too early for a final assessment.

The other crucial part of the strategy is the two pillar framework for identifying and assessing risks to price stability. As you all know, an *economic analysis,* which assesses the implications of cyclical economic dynamics and shocks on the risks to price stability at short to medium-term horizons, is cross-checked by a *monetary analysis*, that is focused on the identification of monetary trends that influence price developments over the medium to longer-term.

Notwithstanding the considerable efforts of those involved in the preparation of Monetary Union, at the start of Stage III in 1999 significant gaps and weaknesses in the statistics then available still existed. As a result, the uncertainty surrounding the assessment of economic and monetary conditions was inevitably higher, with the paucity of statistics compounding the already significant challenges for analysis created by the behavioural changes associated with the regime change constituted by Monetary Union.

A concerted effort to collect and construct additional data has significantly improved the statistical situation. Indeed, uncertainty created by the lack of statistical information has dissipated over time.

But, at the same time, our experience at the ECB has been that better data in one field does not permit any scaling down of effort in improving data in other areas. On the contrary, in the face of the constant and evolving challenges posed to monetary policy makers, better data simply facilitates the necessary deeper, broader and richer analysis that is always required in order to take decisions that can serve the ECB's mandate.

Ample proof is surely provided by the experience of the past few months. Central banks throughout the world have faced financial turmoil and tensions in the banking sector. Taking monetary policy decisions in this environment demands thorough knowledge and analysis of monetary and financial factors and thus, in turn, an adequate statistical base covering these areas.

With these general considerations in mind, I now turn to the ECB's monetary analysis in greater detail.

ENHANCING THE MONETARY ANALYSIS

The prominent role for money in the ECB's monetary policy strategy derives from the robust empirical relationship between monetary growth and inflation over longer horizons. For a central bank with a mandate to maintain price stability, a close analysis of monetary dynamics is a natural component of a comprehensive framework to analyse inflationary risks. But the question remains of how to employ the relationship between money and prices operationally to guide monetary policy decisions.

At the ECB, we have found it possible to extract important, policy-relevant information from the monetary developments in real time.

Central to the real time extraction of policy-relevant information from monetary developments is a *broad-based approach* to monetary analysis. It draws in the first instance on data from the MFI balance sheet but also encompasses a wide variety of other, complementary sources, notably financial statistics such as MFI interest rates, securities issuance data, the Eurosystem bank lending survey, and others.

Such a comprehensive and detailed analysis of a broad range of data serves to identify and monitor underlying trends in the monetary data that are relevant for the outlook for price stability and thus for monetary policy decisions.[1]

Analysing the channels through which monetary developments influence inflation dynamics is obviously central:

– Money and credit dynamics play an important role in the evolution of asset prices.[2] Monetary analysis may even help to identify asset price misalignments which – as the Japanese experience in the 1990s attests – can ultimately unwind in ways detrimental to macroeconomic and price stability.

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[1] See "Monetary analysis in real time", ECB Monthly Bulletin October 2004 and B. Fischer, et al. (2008) "Money and monetary policy: The ECB experience 1999-2006" in eds. A. Beyer and L. Reichlin *The role of money – Money and monetary policy in the twenty-first century* (ECB).

[2] See R. Adalid and C. Detken (2007) "Liquidity shocks and asset price boom/bust cycles", ECB working paper no. 732.

– Moreover, by providing insight into the portfolio behaviour of money-holders and banks, monetary analysis also enriches our assessment of private sector attitudes to risk, which play an important part in spending and pricing decisions.

– Furthermore, money and, particularly, credit developments are an important component of the financing conditions facing firms and households, which can have significant implications for consumption and investment decisions that drive the business cycle.

Understanding these channels better is at the heart of the agenda to enhance the monetary analysis that is being pursued by Eurosystem staff at the behest of the Governing Council.[3]

Four avenues for further research in order to deepen our monetary analysis have been identified.

First, new money demand equations are being developed, which can better explain monetary developments observed over the past few years.

Second, the indicator properties of monetary developments for inflation are being investigated in greater detail, with a focus on the relationship over longer horizons.

Third, the Governing Council has commissioned further work on structural models of the economy that incorporate an important role for monetary and financial variables.

Finally, the Governing Council seeks tools that will aid its cross-checking of the economic and monetary analyses, which is central to the ECB's monetary policy strategy. Scenarios constructed using structural models are one such approach, while the integrative framework provided by the new euro area accounts is another.

Work on these four avenues is ongoing.

Our ambitious agenda not only challenges those developing the monetary analysis; it also creates new data demands and statistical requirements. It is to those that I now turn.

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3 See J. Stark "Enhancing the monetary analysis", speech at the Conference "The ECB and its watchers IX", Frankfurt 7 September 2007 (http://www.ecb.europa.eu/press/key/date/2007/html/sp070907_1.en.html).

STATISTICAL REQUIREMENTS FOR ENHANCING THE MONETARY ANALYSIS

What are the statistical requirements for enhancing the monetary analysis?

First, the availability of *long runs of historical data* is crucial to the development of appropriate models and tools. There is thus a vital need for long monetary time series that are *consistent over time*.

Meeting this requirement is crucial to developing a better understanding of the leading indicator properties of money for future price developments over longer horizons, and thus for constructing the policy-relevant money-based inflation risk indicators. Moreover, conventional techniques to estimate money demand models rely on long time series, which are often not available for the relevant variables, such as wealth, in the euro area.

Second, a sufficient degree of *homogeneity in statistical definitions* and concepts used across countries must be achieved. Notwithstanding the considerable efforts made to harmonise the monetary series in the run up to Stage III, significant analytical challenges continue to exist in this respect, given the remaining significant differences in retail financial systems across the euro area.

Third, undertaking the real-time analysis requires the provision of timely data. This includes, when necessary, anonymised information on specific one-off or special transactions that influence the aggregate series. Notwithstanding the medium-term orientation of the monetary analysis, obtaining data – notably for the MFI balance sheet – at a monthly frequency and in a timely fashion is crucial to determine promptly the *current* underlying trend in monetary and credit expansion. This is because of the well-known "end-point problem" in time series analysis, whereby the latest observations have a very high weight in determining the turning points in the evolution of the series. These turning points in the data are obviously crucial from the policy perspective, since they may lead to turning points in the evolution of the policy stance, as was the case in 2005. Obtaining data with a long lag or only on a quarterly basis implies that the identification of turning points in monetary trends is delayed relative to a situation where monthly data are available promptly.

Fourth, a *rich data set* is needed. Data that have proved useful in developing a rich understanding of monetary developments at the ECB include all aspects of the MFI balance sheet: the *components* of M3; the *counterparts* to M3 (notably loans and credit); holdings of M3 *deposits by institutional sector*; and contributions to M3 deposits by the *residency of the issuing bank*.

In particular, in deepening our understanding of money demand, one promising approach is to distinguish between deposits held by households, non-financial corporations and non-monetary financial institutions. This obviously requires sectoral monetary data. Research undertaken by ECB staff suggests that the

responsiveness of money holdings to interest rate or income changes varies widely across sectors, and that some patterns in the aggregate monetary data are better explained by building up from the sectoral level.[4]

Fifth, *consistency* of the monetary data with other sources of relevant data is crucial. Maintaining consistency of the monetary data with other data sources can facilitate the cross-checking of the monetary analysis with the economic analysis (e.g. in the context of the euro area accounts). Consistency among various data sets also supports the estimation of structural models that embed monetary and financial frictions within a real economy framework.

Improving consistency between the concepts underlying the construction of the monetary data and those used by banks when reporting for accounting and regulatory purposes is also desirable. Not only should this serve to lessen the burden imposed on reporting agents, but it may also help to avoid confusion in the interpretation of the data that can emerge when superficially similar concepts have quite different economic meanings and relevance.

Sixth, *better primary information* on both banks and counterparty sectors is needed.

The ECB has taken a number of important initiatives in this regard.

– The Eurosystem bank lending survey is now a well-established source of information on financing conditions, which complements and enhances the regular analysis of loan and credit flows. Consideration is currently being given to surveys of the corporate and household sectors that would provide a new source of information on financial developments, the cost and availability of credit and portfolio behaviour.

– Obtaining new primary data on the balance sheets of financial institutions other than banks would be particularly welcome. One feature of the monetary data in recent years has been the rising share of non-monetary financial institutions in money holdings, which would be better understood on the basis of a more comprehensive analysis of the balance sheets of such institutions.

– More generally, developing more comprehensive balance sheet statistics and, in particular, measures of sectoral wealth are important. Such data can support the refinement of money demand models. Indeed, to make progress with our agenda for enhancing the monetary analysis, statistical work is urgently required to improve the available sectoral wealth data, in particular by providing longer time series that will money holding to be modelled as part of a wider portfolio decision.

Seventh, it is important that the statistical framework for the monetary data maintains a high degree of *clarity and stability* in its definition of concepts, so that central bank staff and policy-makers can be precise in their analysis and

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4   See J. von Landesberger (2007), "Sectoral money demand models for the euro area based on a common set of determinants", ECB working paper no. 741.

assessment. Unless we can develop a thorough understanding of the meaning of the data, interpretation will prove impossible.

Eighth, *sufficient flexibility* is required to encompass the new instruments and behaviour implied by financial innovation. If necessary, statistics must be *promptly and regularly updated in the face of rapid financial innovation* and broader structural change.

Of course, a trade-off exists between the stability and flexibility of the statistical framework. Careful management of this trade-off is required in order to make monetary series meaningful for policy purposes in real time.

In particular, it is apparent that the statistical framework needs to incorporate new instruments and business models resulting from financial innovation in a manner that maintains consistency between key aggregates (such as M1, M3 or MFI loans) and the policy-relevant underlying economic concepts (such as liquidity, money or financing). Yet if such updating implied almost continuous changes to the definition of key aggregates, a consistent analysis of the data over time would be impossible.

Of course, I could go on and on: statisticians and reporting agents know all too well that economists and policy makers' data requirements are, in principle, inexhaustible. The merits and costs procedure adopted by the Governing Council to assess new statistical regulations reflects the need to cap this insatiable demand.

Today I will limit myself to nine requirements, and thereby come to my *final* point. In designing and constructing monetary and financial statistics for monetary policy purposes, it is crucial that *close cooperation* and *active dialogue* is maintained among reporting agents, statisticians at the ECB and the national central banks, users of the statistics and policy-makers. This is a point I will take up again in my conclusion.

Before coming to that, please allow me to make a number of remarks about the role of monetary analysis in the current period of financial turmoil, drawing on the general requirements I have just listed to identify a number of specific implications for the construction of the monetary statistics that have arisen in this context.

PRELIMINARY LESSONS FROM THE ONGOING FINANCIAL TURMOIL

Since the emergence of financial tensions in early August 2007, the ECB's monetary analysis has proved a crucial bulwark for the conduct of monetary policy in the euro area.

In particular, the monetary analysis has helped to maintain the necessarily medium-term orientation of monetary policy, at a time when the power of the short-term forces at play threatened to overwhelm it. Moreover, the monetary

analysis has served to maintain a focus on nominal developments – that is, the inflation outlook at longer horizons – over which central banks can exert control and for which they ultimately need to take responsibility. The monetary analysis has thus helped the ECB to maintain the orientation of monetary policy towards its primary objective.

Moreover, the recent financial market turmoil has re-emphasised the importance and special nature of the banking sector in the transmission of monetary policy and determination of macroeconomic outcomes. Contrary to the attitude taken in some academic critiques of the ECB's monetary policy framework, developments over the past few months surely demonstrate that banks play a distinctive role in creating "monetary liquidity" that, in turn, is an important determinant of developments in credit and asset markets, in the evolution of the economy and ultimately of price dynamics. Suggestions that securitisation and off-balance sheet activity rendered the analysis of bank balance sheet meaningless have now been revealed as absurd. Attempts to shift activity off-balance sheet proved to be a chimera, as the financial turmoil forced re-intermediation of loans and credit risk onto the MFI balance sheet.

In practical terms, analysis of the MFI balance sheet has provided an important "close to real time" insight into the behaviour of financial institutions, at a time when the macroeconomic outlook (including prospects for price stability) and the transmission of monetary policy were seen to be potentially strongly influenced by the behaviour of banks and the possibility of a "credit crunch". In particular, a close analysis of the monetary data provided evidence that the flow of bank loans to households and corporations was not significantly impaired by the money market tensions observed in the second half of 2007 and early 2008, thereby tempering the messages coming from other data sources, such as the Eurosystem bank lending survey and MFI interest rate statistics. This analysis has proved to be an important input into the assessment of financing conditions and thus in the analysis of cyclical dynamics of the economy, under both baseline and variant scenarios.

As this brief description illustrates, the financial turmoil episode has demonstrated the importance of a number of the general principles governing monetary analysis with implications for our statistical requirements in this area.

Adopting a broad-based approach to analysis has proved fundamental. By implication, integrating the analysis of monetary data with information from a wide variety of sources – in particular, a wide set of financial statistics for both prices and quantities and the bank lending survey – has been crucial. Moreover, to have impact on policy discussion, conclusions drawn from analysis of the monetary and credit data regarding loan supply conditions must be available in close to real time, supporting the need for timely monthly reporting of monetary statistics.

Of course, in current challenging circumstances, it remains too early to judge the success of our monetary analysis and, by implication, the quality of the information derived from the existing body of monetary statistics.

Nonetheless, three points can and should be made on the basis of our experience since last August:

First, the close analysis of the monetary data derived from the MFI balance sheet has proved crucial in understanding the nature of the turmoil and the challenges it poses for monetary policy. It has both served to maintain a focus on the longer-term inflationary trends that are fundamental to effective monetary policy making, while also deepening our understanding of financial conditions and their cyclical implications.

Second, the turmoil has identified a number of lacunae in the statistical basis for the analysis – for example, regarding the extent of credit risk transfer from bank balance sheets – that need to be addressed.

Third, from the outset of Monetary Union, the ECB has maintained both the necessary staff expertise and the required statistical base for a thorough monetary analysis. Maintaining such continuity is required if the monetary analysis is to be insightful when – as is certainly the case now – monetary and financial factors are at the heart of the policy discussion.

These are important lessons to be drawn from the ECB experience.

CONCLUDING REMARKS

Sceptics have often questioned the information content of monetary data and thus criticised the role played by monetary analysis in the ECB's monetary policy strategy. Often such critiques are based on only a casual knowledge of the euro area data.

Based on the ECB experience, the ability to extract policy-relevant information from the monetary data depends on two elements:

First, *high quality data* must be available.

Second, *high quality analysis* of the data is required on an ongoing basis.

It is apparent that a self-reinforcing *virtuous cycle* can be created, whereby better data serve better analysis, which in turn identifies necessary improvements to the data. The continuous nature of the process underpinning this virtuous cycle is crucial: once halted, even a successful monetary analysis may prove hard to restart. Maintaining continuous improvement in the data and the analysis is central to our agenda to "enhance the monetary analysis".

By the same token, the potential for a destructive *vicious cycle* also exists. Poor quality data breeds poor analysis. Attempts to improve monetary statistics thus yield lower returns, and investment in such improvements diminishes. The resulting deterioration in the quality of the data in turn leads to a further deterioration in the impact of the analysis, thereby feeding the vicious spiral.

Based on the Anglo-Saxon experience with financial innovation, many critics argue that monetary data has little or no information content and should be discarded from monetary policy considerations. What I would like to emphasise today is that there is nothing necessary about this conclusion. It is neither a theoretical necessity nor an empirical inevitability caused by some irresistible exogenous force. Rather, the information content of monetary statistics and the value of monetary analysis are questions of practice: they are determined endogenously, with greater efforts on the analytical and statistical side leading to more meaningful results and more policy-relevant conclusions.

In close collaboration with statisticians and reporting agents, within the Eurosystem we have and are making this investment in enhancing the monetary analysis. This investment has paid important dividends in guiding monetary policy decisions – no more so than in the current challenging conditions of financial turmoil.

Looking forward, we seek your help in maintaining the momentum of the virtuous cycle of continuous improvement in monetary analysis, which will support monetary policy decisions from which we all benefit. By enhancing its monetary analysis through both statistical and analytical advances, the ECB is well prepared to meet current and future challenges.

THE CONTRIBUTION OF INTEREST RATE STATISTICS FOR THE MONITORING OF THE INTEGRATION OF EU BANKING MARKETS

GIUSEPPE ZADRA

1   INTRODUCTORY WORDS

Today's Conference has a strategic focus on the challenges in the coming ten years, and I welcome the European Central Bank's forward-looking approach. The overarching framework of the European financial integration will lead to enhanced economic growth and jobs creation. In this context it is important to maintain the global perspective, while not losing sight of important detail.

My presentation will focus on interest rate statistics, an economic parameter that is used every day by every bank. It is, if you like, the pulse of our economy. Monitoring the development of interest rates helps us make an informed investment decision: comparing interest rates today with those a year ago tells us whether the cost of capital has gone up or down, so we know whether to put savings in a deposit, invest in property or buy financial derivatives instead. Comparing interest rates across the EU countries gives an indication of whether one should do it in one's hometown or maybe across the border. With the ongoing progress of integration of the European financial markets, it is becoming ever easier to pick and choose the products and service providers wherever one desires.

2   FINANCIAL MARKET INTEGRATION AND INTEREST RATES

2.1   Integration of European Financial Services Markets

At the same time, in the eyes of a banker, the flexibility and variety of banks' services is a result of the work of a complex mechanism. Banks offer diverse financial products and services, both simple and sophisticated; they offer them to private individuals, public bodies and commercial clients both domestically and across borders. In other words, they offer heterogeneous products to heterogeneous markets. This immediately engages jurisdictions and economic regimes of different countries, thus making the picture even more intricate. It is no surprise that the European community has been striving for integration of financial markets, because integration brings multiple benefits:

a. It promotes economic growth and the well-being of consumers as well as investors;

b. It helps to improve the allocation of capital and investment opportunities, and

c. It facilitates sharing and diversification of risk (the benefit and effectiveness of which has been particularly evident in the light of the recent financial turmoil).

With this ambitious target in mind, a number of important milestones have been reached in the financial industry over the past years:

– *Introduction of the euro and the single monetary policy*: brought, *inter alia*, price stability and transparency across all 12 euro area countries (now 15), which helped lower interest rates. This has facilitated an intensified cross-border trade within the euro area countries as well as between the euro area and other countries.

– *The Financial Services Action Plan* (FSAP): started a new era of EU policy in the field of financial services, which facilitated integration of EU financial markets, convergence and/or mutual recognition of national practices, harmonisation of national legislation.

– *The follow up White Paper on Financial Services, 2005-10*: put more emphasis on the completion of integration of financial markets, with specific attention paid to some aspects: dynamic cross-border consolidation and expansion of influence of the EU in the world, better regulation principles in policy making, enhancement of supervisory convergence, and increased competition, with a specific focus on removing significant economic barriers.

Significant progress has been achieved in wholesale markets integration, the evidence of that being highly converging fluctuation of interest rates and steadily increasing volume of cross-border inter-bank loan provision and holdings of securities. But at the same time, retail markets integration is still lagging behind. This should not be considered as a lack of demand from consumers, nor as a lack of competition. It is true that most of the retail business can be done with local or regional banks. But as a matter of fact, people in Europe have never had the chance to experience a truly open European market for retail banking. I am convinced that, in this context of increased competition, Europe would see an increasing demand for cross-border banking services if the existing hurdles were abolished.

Our aim is not harmonised banking products on a European scale, but open markets with strong competition and banks as well as banks' customers deciding on what retail products will look like in the future. This includes regional diversity. Looking at the European countries, one finds totally different behaviour patterns of private households and enterprises with respect to retail products. There are also regional differences in banking structures and strategies. I suspect that cultural, historical and linguistic behaviours will remain the same even with further integration, but at least opportunities are there for those who want to seize them.

It appears to be inconsistent with the EU's high political principles that the same political body that has stated these principles is now impeding their implementation and refraining from removing the barriers, as indicated in our recent paper on Integration of the European Financial Services Markets.

2.2 Trading Volumes, Prices and Interest Rates: Estimates of Financial Sector Integration

While half of the banking activity is related to financial intermediation (i.e. loans and deposits to households and non-financial corporations), the other half is concerned with banking services, i.e. prices for products and services, fees, net profit from financial operations, income from securities, etc. This part is not monitored the same way. What does this mean for statisticians? It implies that the indicators for integration of financial markets are also volumes of business and prices.

The banking statistics provide us with a lot of information about the outstanding *volume* of cross-border assets and liabilities. The Eurosystem has substantially improved its publications over time, which puts us in a good position to assess the level of movements of traditional banking products like loans and deposits between the euro area countries. Indeed, we see that the share of cross-border assets and liabilities within the euro area has increased since the introduction of the common currency. Of course, this does not cover all services offered by banks, but at least we can derive some indications. From this point of view we see growing integration, although the overall level is still relatively low.

At the same time, *prices* are expected to converge with the ongoing integration because of the law of one price. As we all know, this law works, but it does not necessarily lead to one single price for any product in the European Union. There are a lot of defining factors, such as transportation costs, taxation, specific behaviour patterns in different regions and so forth. For as long as these differences are there, discrepancies in interest rates across countries are bound to exist. At the same time, we must keep in mind that economic welfare is enhanced not only by making the prices of homogenous products uniformly equal, but also by diversifying the supply of products and services. The more varied and complex the products/services, the bigger the potential interest rate spread. Nevertheless, integration will lead to a certain degree of price convergence.

However, in contrast with the information on the volumes of trade, it is by far more difficult to filter out information about the level and the speed of integration of the banking market from the price for banking services. This is especially true for the retail business. Clearly, the lack of integration of retail banking markets across Europe results in a high dispersion of interest rates and prices on financial products. Firstly, it is practically impossible to establish any meaningful statistics about commissions because of the variety of different services and the pricing patterns of banks. Secondly, the regional differences, which I mentioned some minutes ago, also make life rather difficult for statisticians who try to evaluate the level of integration in the retail market on the basis of interest statistics.

Let us look in more detail at the recent trends of some interest rates. EURIBOR, the Euro Inter Bank Offered Rate, illustrates very well the convergence of

(wholesale) interbank interest rates. Such high convergence across the euro area countries reflects deepening integration in the form of access to finance at a comparable cost. This offers businesses in different euro area countries more and more equal opportunities for financial transactions and a possibility to create wealth on a scale similar to that of their neighbours', all other things being equal.

I would also like to draw your attention to the fact that some other EU countries aim at becoming part of the euro area, notably the new Member States. They put a lot of effort into eliminating the dispersion between their domestic rate of interest and EURIBOR, although so far in most of them it has been happening more slowly and with more difficulty. Due to the high rate of growth in these countries, it is hard to maintain inflation at low levels, and thus interest rates are also escalating. A vivid example is the situation of the EURIBOR in the Baltic countries, as depicted in Chart 1.

The European Council has already been called upon to review the Maastricht criteria that were set up initially in the European Union comprised of the 15 Member States – maturely developed economies which could largely meet the criteria for euro area membership at the time. In the new EU Member States, which are still in the phase of rapid economic growth, it is virtually impossible to keep all four Maastricht criteria in check. To put it simply, for the countries whose highest and overarching priority is economic convergence (i.e. building up the country's economic wealth), it is only natural to experience higher levels of turbulence in the financial sector, and in

Chart 1 **3-month interest rates in euro area, Estonia, Latvia, Lithuania, monthly average data, 2000 to September 2007**[1]

Source: P. Parlasca (2008), "Latest developments on interest rates, in 2007", Eurostat Statistics in Focus 9/2008, p. 5.

Chart 2 Standard deviation of interest rates for loans in Euro area

- —— household consumption
- ····· household purchase
- ‑‑‑‑ non-financial corporations up to €1 million
- —— non-financial corporations over €1 million
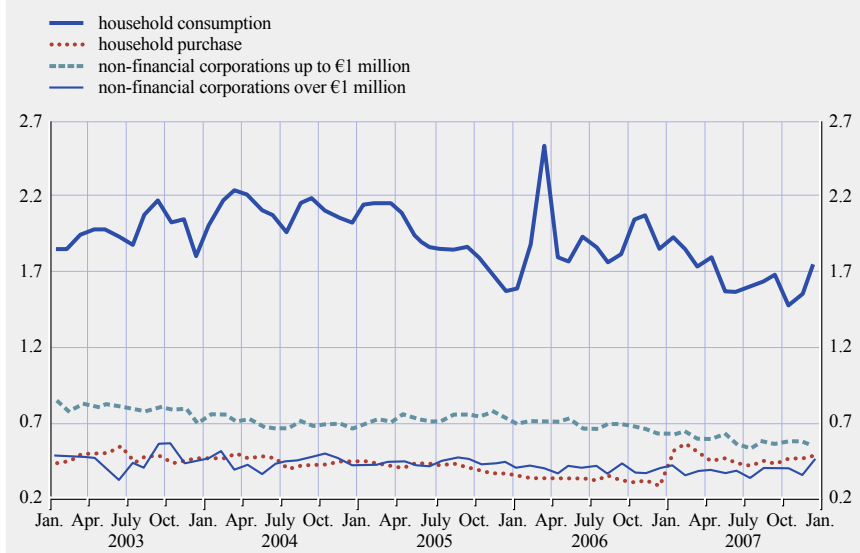
Sources: ECB data and EBF calculations.

particular, slower convergence of interest rates. This confirms that on the scale of the whole European Union, the integration of financial markets is rather a medium to long-term process.

While business-to-business lending rates have largely converged, the *retail financial markets* still experience higher dispersion. The coefficient of variation ranges from 20% for loans to enterprises with a maturity of more than one year to 28.4% for mortgage loans to households[1]. Chart 2 depicts the standard deviation across interest rates in the euro area countries for loans to enterprises and households over the past five years.

While the general picture indicates a trend towards gradual reduction of dispersion across euro area interest rates, differences still persist even nine years after the introduction of the Eurosystem. Chart 3 illustrates the converging dynamics of the individual countries' interest rates.

The remaining residual dispersion can be explained by differences in fiscal and regulatory frameworks, access to liquidity, types of offered financial products and their associated level of credit risk, market structures, prevailing maturity within a given maturity band, etc.

Certainly, financial markets integration and economic convergence are the overarching goals for the EU. However, given the evidence above, it is important for policy-makers to be realistic about the extent to which this can be achieved.

1   SEC(2007) 1696.

Chart 3 MFI Interest Rates on Euro-Denominated Loans, New Business, for the Euro Area

(percentages)

Legend: area | BE | DE | IE | GR | ES | FR | IT | LU | NL | AT | PT | SI | FI

Loans to Households For Consumption

Loans to Households for House Purchase

Loans to Non-Financial Corporations for Amounts up to €1 million

Loans to Non-Financial Corporations for Amounts over €1 million
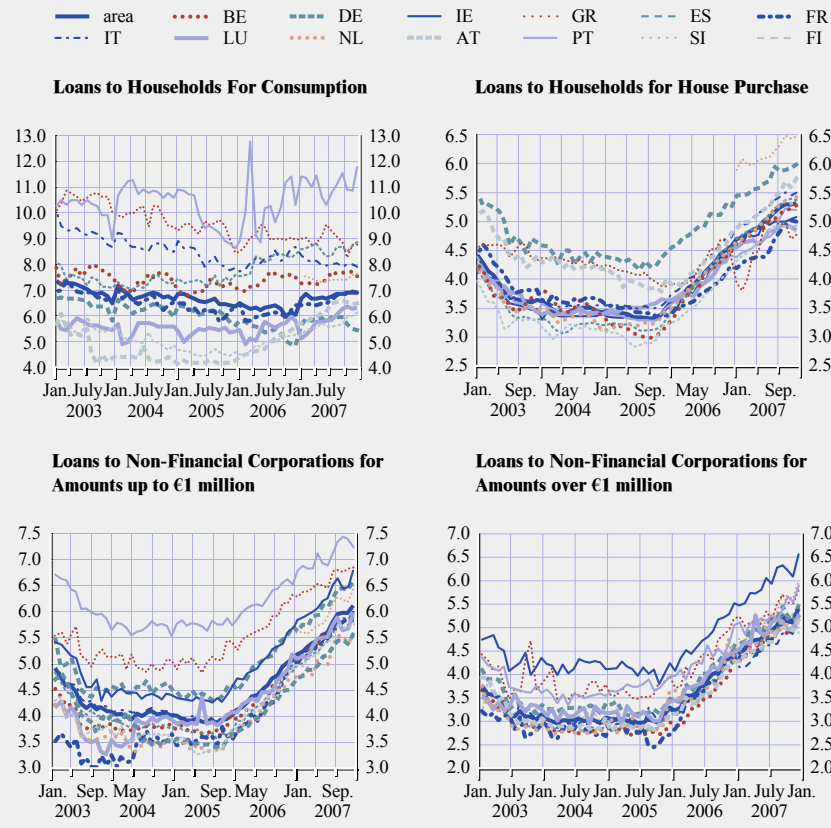
Source: ECB (2008).

2.3 Interest Rates are a Partial Measure of Integration of Banking Markets

In using the data of the interest rate statistics one should always keep in mind that this statistic has not been developed as an indicator for integration in the European banking market. The European Central Bank's primary use of the interest rate statistic is to monitor the effectiveness of the monetary policy transmission mechanism and to observe interest rate margin spreads. In principle, the classification of the different groups for which interest rates are collected is based on the banking statistics. This is a correct approach with respect to the aims of the ECB. But even for this purpose, there are a lot of problems in correctly interpreting the results of the statistics. For example, I am in doubt whether the movements of a certain interest rate truly reveal the speed and the extent to which the banks in the euro area react to interest rate decisions of the ECB. There is a substantial amount of noise in these time series due to the fact that the different categories contain a number of different products with different features. In theory, there could be substantial movements in the series from one month to the next without a change in interest rates for any product.

Such difficulties become even more pronounced when it comes to the interpretation of these data for other purposes. One example is that some media like to compare the differences in the national interest rate levels as evidence that the national banks are either too expensive on the loan side or too penurious when it comes to the remuneration of deposits. Because of national differences, particularly in retail markets, these conclusions are overstretched.

Therefore, one should also be very careful in interpreting the interest rate data with respect to integration. As long as the dispersion among national rates remains in the magnitude which we have seen for some years, it is, in my view, fair to conclude that there is little progress with respect to integration. This is especially true as long as other important aspects, like national consumer protection laws, are not changed in order to enhance integration.

It is difficult to assess how far and how quick interest rates would converge if the important hurdles which stand in the way of integration of the retail market were taken away. After all, there is a strong national or regional bias on the side of private customers. At the least, a convergence of retail interest rates will take some time. Therefore, the ECB's interest rate statistic is an important element in assessing integration in the European banking market. But, one should always be aware of its limits.

I welcome the continued efforts of the ECB to improve the statistics through upgrading reporting requirements without imposing additional burden on banks. Would the envisaged adjustments to the interest rate statistics improve the informational value with respect to its relevance as integration indicator? As far as I can see, the Eurosystem will have additional information which will help to facilitate its assessments of how banks respond to changes in the ECB's rates. This will be the main advantage of the envisaged adjustments. It may even improve the comparability of national interest rate levels, but – because of continuing large divergences between the products of the different banking systems – only to a limited extent.

3   CONCLUDING REMARKS

In conclusion, I would like to get back to my opening point: over the past ten years the European financial markets have witnessed significant progress on a number of fronts, notably in the money and wholesale financial markets. Nevertheless, a number of measures still need to be undertaken in order to remove the barriers preventing European banking markets from further and deeper integration. This is the overarching goal the European Banking Federation is pursuing.

The interest rate statistic has been a convenient proxy for monitoring the progress of convergence, and I would like to acknowledge the Eurosystem for a substantial improvement in the quality of this indicator over the past few years.

Needless to say, there is still room for enhancing the set of available information, as this could be helpful for consumers, firms, analysts, and market participants in

general. Broadly speaking, I wonder, for instance, if the ECB could release – as timely as possible – the national data on the flows and the amounts outstanding associated with the published interest rate statistics. With respect to collection of the interest rate data by category, a more detailed and exhaustive breakdown by class of loan amounts could be introduced, which would help improve understanding of the differences pertaining at that level. Last but not least, I wonder if it would be useful to provide data with regard to the interest rates of funding instruments other than deposits, such as bonds.

However, we should always keep in mind the limits of how much information this statistic can offer. We should also keep in mind the full complexity of the banking markets in order to understand the remaining differences across the euro area countries.

I thank you for your attention.

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DISCUSSANT'S REMARKS

MONETARY AND FINANCIAL STATISTICS: EVOLVING TO MEET USER NEEDS

JOHN HURLEY

I INTRODUCTION

In a little over one month's time the Eurosystem will celebrate its tenth anniversary. This milestone is worthy of celebration, but it is also an opportune time to reflect on our experiences over the past decade and plan for the challenges ahead. In recent months we have experienced turmoil in the financial markets. It is therefore a fitting time to examine the quality of our monetary and financial statistics, review our statistical priorities for the coming decade, and take on board any lessons that can be learned from the recent turbulence. Jürgen Stark and Giuseppe Zadra have eloquently highlighted some of the challenges ahead, and it is my pleasure to be asked to discuss these.

The financial system is ever evolving. In addition to innovations in products and technology, we have witnessed increased cross-border interlinkages, with financial intermediation increasingly dominated by global banks, investment funds and specialised vehicles, while financial innovation has provided opportunities to diversify risk into new sophisticated products. All of these developments provide challenges to statisticians, both in terms of measuring their impact on financial markets and identifying the counterparts to risk. As recent experience has shown, the cross-border nature of these activities has implications for financial stability and the operation of financial markets worldwide. Rapidly evolving financial markets require flexible data collection frameworks which can track innovations and measure their impact within a coherent statistical framework. This need for timely and relevant statistics must, however, be balanced against the need to limit the reporting burden on respondents. This highlights the need for compilers to maximise the use of information currently available.

In this discussion, I will briefly mention a number of new ESCB statistical initiatives currently underway and comment on how these will help alleviate some current shortcomings. I will refer to some of the strategic issues facing compilers. Finally, I will look at some factors inhibiting financial integration in European retail markets and show the value of harmonised interest rate statistics in assessing how the monetary transmission mechanism can operate differently across the euro area.

2 ESCB MONETARY AND FINANCIAL STATISTICS – SOME ISSUES RAISED

Jürgen has clearly demonstrated the need for a broad-based approach to monetary analysis and the need to link and reconcile different statistics to inform

policy-making. He has outlined the significance of monetary and financial statistics in the ECB's monetary analysis and showed how the importance of this analysis has been reinforced by our experiences of the recent/ongoing financial turmoil. This broad-based approach to examining monetary trends and economic dynamics is central to the ECB's assessment of the risks to price stability.

Monetary policy decisions need to be evidence-based, and for this, policy-makers need timely and reliable data on the real and financial economy. In this regard, detailed sectoral breakdowns of monetary and credit developments provided by the Monetary Financial Institution (MFI) balance sheet statistics, cross-checked with alternative data sources such as the Bank Lending Survey and MFI interest rate statistics, have proved a rich source of information on the behaviour and reactions of households and non-financial corporations (NFCs). Jürgen has also commented on the statistical needs of users in order to uncover the medium-term/ underlying trends in monetary dynamics. These needs range from consistency of time series to homogeneity of definitions, to scope for international comparisons, which are all of utmost importance.

It should be acknowledged, however, that the ESCB has made considerable progress over the last decade in developing a comprehensive statistical framework. For instance, in 1999 MFIs began to report harmonised balance sheet statistics according to standardised definitions, but as Jürgen mentioned, gaps remained until the Regulation was further enhanced in 2003.[1] These developments were big steps forward in coordinating and harmonising the previous disparate national statistics. Further harmonisation of concepts and definitions have been implemented since then by way of various housekeeping amendments.

The progress made over the last ten years will be consolidated by the updating of the Balance Sheet Information (BSI) and Interest Rate Regulations, and by the introduction of new Regulations covering Investment Funds and Financial Vehicle Corporation (FVC) statistics. I will now focus on one area where the new statistical developments will help address one of the statistical shortcomings identified by users – the lack of comprehensive information on the assets and liabilities of Other Financial Intermediaries (OFIs), or in less technical terms, non-bank financial enterprises.

3   EXAMPLE OF STATISTICAL SHORTCOMINGS

Currently, for users, the most difficult sector to interpret is the OFI sector. This is due to the heterogeneous nature of the sector, which encompasses investment funds, FVCs treasury companies, hire purchase companies and securities and derivatives dealers. The motivation and business reasons underlying the activities of different actors within the OFI sector can be varied and can have different implications when assessing risks to price stability.

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1   Regulation (EC) No. 2423/2001 of the ECB, of 22 November 2001, concerning the consolidated balance sheet of the monetary financial institution sector (ECB/2001/13).

For example, the euro area has witnessed strong growth in lending to OFIs in recent months, which has coincided with the recent financial market turmoil. This begs the question as to whether this is directly related to the turmoil, such as banks taking conduits back onto their balance sheets. On the other hand, there have been suggestions that some of the lending to OFIs has been of a more bullish/opportunistic nature, such as lending to hedge funds and investment funds which have identified investment opportunities in a climate of high volatility and heightened uncertainty. While both of these examples are classified generically as 'lending to OFIs', they have different implications from a monetary policy standpoint.

Lending for the latter purpose is likely to generate wealth effects arising from higher levels of return on investment, which can then filter into consumer expenditure and ultimately have an impact on price stability. On the other hand, the bringing of existing conduits onto balance sheets is simply the transfer of debt from the conduit to the MFI and does not involve any new lending to the real economy.

The proliferation of securitisation activity in recent years, as outlined in Chart 1 (showing the issuance of securitisations in Europe from Q1 2000 to Q4 2007), has also created difficulties in measuring the indebtedness of households and NFCs. Securitisations, and the subsequent removal of these loans from bank balance sheets, have artificially lowered the outstanding indebtedness of the private sector vis-à-vis the MFI sector. At present the statistical framework does not fully capture this activity.

OFIs can also provide an alternative source of funding for large NFCs. We have seen strong growth in lending to NFCs which conflicts with other indicators, such as the Bank Lending Survey. NFCs have been using private equity funds and financial vehicles as an alternative source of funding to bank lending – for example, by securitising income flows. It is possible that the growth in lending to NFCs is driven by a move away from these alternatives and a return to more traditional lending from banks.

Chart 1 Quarterly european securitisation issuance, Q1 2000 – Q4 2007

y-axis: EUR billions

- securitisation issuance
- four quarter moving average
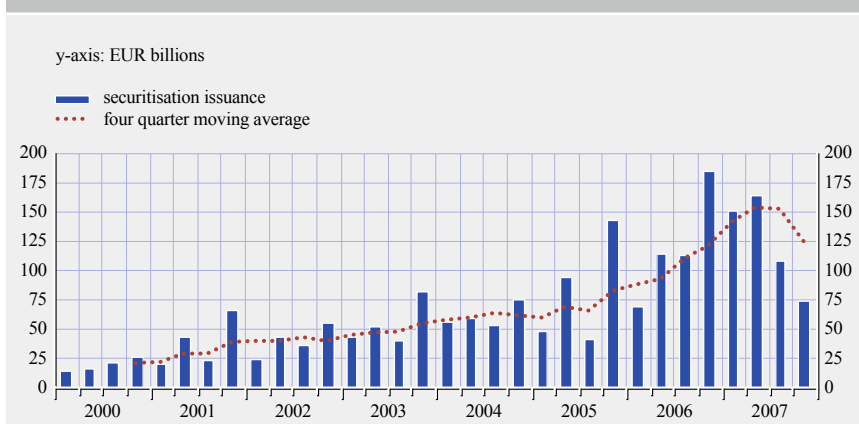
Source: European Securitisation Forum.

Finally, data gaps have also emerged in measuring credit risk transfer arising from financial innovation, new financial instruments and advances in technology. The opaque nature of many of these instruments leads to difficulties in identifying the amount of risk transferred and the ultimate holder of the risk.

4   GLOBALISATION

The statistical gaps identified are inextricably linked to the globalisation of economic activity. Large multinational banks and financial intermediaries operate globally and, indeed, in the context of Giuseppe's paper, the integration of wholesale financial markets is a global phenomenon not just confined to the EU. From a monetary analysis perspective, the cross-border supply of and demand for banking products is becoming more important, and monitoring these developments will become increasingly difficult unless we have a full picture of where banks source their funds and to whom they lend. As stated earlier, advances in financial technologies have also changed the traditional flow of risks associated with banking around the world. Increasingly, the national or euro area activities of multinational enterprises can only be understood within a global context.

Monitoring securitisations by euro area banks is a good example of this. For instance, where a euro area bank establishes an FVC within the euro area, the statistical compiler will be in a good position to identify the FVC and monitor its activity. However, if the same bank establishes an FVC outside of the euro area, we do not have the powers to request the FVC to report to us. Certainly, some information can be sourced from the originator bank, but this may be limited, especially if the originator bank does not continue to service the securitised assets.

Initiatives by Eurosystem statisticians cannot always provide the information needed by compilers and users. These issues can only be resolved through a coordinated approach and by maximising the use of currently available data – both nationally and internationally. In this context, I see an opportunity for us in Europe to lead the way by making greater use of existing information – statistical, supervisory and market, subject of course to any legal constraints that may apply. I am pleased to note that the ESCB has already begun examining possibilities to exploit synergies between supervisory and statistical data.

5   CURRENT ESCB STATISTICAL INITIATIVES

A number of new statistical initiatives are currently in train at the ECB, and I will comment briefly on these. In the update of the BSI and Interest Rate Regulations, we are examining ways of enhancing information on credit risk transfer and securitisations in consultation with reporters and users. These Regulations also provide for the collection of data on the instruments used and the sector and residency of the counterparts.

Further information on the collateral and the maturity profile of loans should also enhance our understanding of interest rate differences across euro area countries and the likely impact of policy rate changes on the behaviour of households and NFCs – I will return to this later.

Initiatives in the field of Investment Funds and FVCs will deepen our understanding of these entities and the factors influencing their investment and funding decisions. The Investment Fund Regulation provides for detailed balance sheet information by type of fund (including hedge funds) on a security-by-security basis. These data, in conjunction with information held in the ECB's Centralised Securities Database, will provide policy-makers with timely information on changes in investment fund balance sheets and improve our understanding of how these developments influence monetary aggregates – something Jürgen referred to earlier.

The FVC Regulation will provide for the collection of data on securitisation activity, which has grown strongly in recent years as Chart 1 shows. The new reporting framework will identify links between FVCs and MFIs, such as deposit and loan balances, and provide more comprehensive information on flows within the OFI sector.

6 FLEXIBILITY IN STATISTICAL DEVELOPMENT

Some data gaps are being addressed in the context of ECB and ESCB statistical developments, but others are outside their scope and require alternative approaches in conjunction with industry and global compilers.

To date, the ECB has followed a very structured approach with regard to the introduction of new statistics. This includes consultations with users, a comprehensive merits-and-costs assessment and the drafting of legal instruments before any data are collected. These procedures are necessary to ensure that user needs and quality criteria are met, and that an undue burden is not placed on respondents.

The timeframe, from the identification of a statistical requirement through to the delivery of data, can therefore be lengthy, and this approach may not be suitable in all circumstances. For instance, in times of financial volatility, such as the current turbulent period, central banks may require additional information at short notice which is not covered by the regular statistical outputs. Consideration should be given to increasing flexibility in data collection as needs arise – possibly by undertaking more ad-hoc data collection from key market participants. While I appreciate that there may be a trade-off between timeliness and reliability, such initiatives may be essential in times of high volatility in financial markets, or to measure the impact of financial innovation.

I referred earlier to the need for a more coordinated approach by statistical compilers, specifically in the context of understanding the role of FVCs. The possibility to share and exchange data with other compiling institutions (such as the BIS) needs to be further explored. Enhanced data exchange can be beneficial

to compilers in understanding *the full picture* and to reporters in terms of reducing the reporting burden – something statistical compilers must always be mindful of.

7 FINANCIAL INTEGRATION – ISSUES RAISED

Financial integration is largely complete in EU wholesale markets but less developed within retail markets (Baele et al, 2004; and Cabrel et al, 2002), as Giuseppe has clearly illustrated. There are a number of cultural, historical and regulatory reasons for this, and I will examine some of these. It is due to these reasons that Giuseppe stated that comparisons of interest rates across countries need to be treated with care by commentators, and that interest rate statistics are only a partial picture of financial integration. I can affirm that policy-makers view them as such.

Monitoring financial integration requires many indicators, of which interest rate statistics are only one – others include the volumes of cross-border activity. The statistics, nevertheless, provide a rich source of information on developments in retail markets and offer insights into why national differences persist.

Since 2003, we have timely harmonised interest rate statistics for households and non-financial corporation loans and deposits in the euro area. The data reveal some convergence in the pricing of retail financial products, but significant differentials still exist for *seemingly* similar products.

In 2005, the ECB established a task force of national experts to research the reasons for such differences. This task force published its findings (ECB, 2006), providing detailed explanations, where available, of the reasons behind cross-country differences. One of their main findings, also highlighted by Giuseppe, was that structures vary across the euro area, even for similar types of products. Various factors such as risk appetite may help explain why households pay, and banks charge, different prices for essentially similar, but differently structured products. These product differences create difficulties in monitoring financial integration on the basis of interest rates alone, without additional qualitative information of the type outlined by the task force. In this regard, the Eurosystem needs to be proactive in explaining structural features at a national level, and how these contribute to rate divergences between countries.

8 FINANCIAL INTEGRATION – DEMAND AND SUPPLY FACTORS

The lack of financial integration in the retail sector is both supply and demand driven. On the demand side, traditional barriers exist. As pointed out by Giuseppe, households and NFCs (or at least small and medium-sized NFCs) can purchase most financial products in their local area. Due to search costs and perhaps even the perceived risk involved in purchasing cross-border financial products, there is a natural home bias for consumers. As central bankers, we may say that a 'rational agent' will seek to find the most suitable and most

keenly priced product. However, as bankers, we could be considered to be '*highly financially literate*'.

This may not be the case for large sections of the euro area population, particularly households and small or medium-sized enterprises. There is, therefore, a need to better equip consumers with the financial literacy skills that will allow them to compare and contrast (often complex) financial products. Improving financial literacy and financial education has widespread benefits, as informed consumers search out more efficient financial products and solutions. Improving the financial literacy of consumers is beneficial to the industry and consumers alike, and is a challenge for all of us.

On the supply side, barriers exist for banks in respect of cross-border business. Many are similar to those experienced on the demand side, but additional barriers also exist. For instance, one particular barrier impeding integration is access to customers' credit history.

A theme in recent months has been the apparent relaxation of credit standards by some lenders worldwide. Good credit standards are essential and the key input for assessing creditworthiness is the customer's credit history. A lack of the information banks need to make this credit assessment will hold back integration and increase the risks for those banks seeking to develop cross-border business.

Credit registers exist in most countries in Europe, but their structures, including the coverage of loans and sectors, vary, with access often restricted to institutions such as domestic banks. This limits their use. Integration is greater for larger corporates, and this may be explained by the availability of audited accounts on which a credit assessment can be made. On the other hand, independently evaluated financial information on households and small and medium-sized enterprises cannot be easily accessed by households or small and medium-sized enterprises – hence the need for access to credit registers. Some steps towards the integration and harmonisation of credit registers could facilitate greater integration of cross-border retail financial services.

9   FINANCIAL INTEGRATION AND MONETARY POLICY

Interest rate statistics are not only important as an indicator of financial integration, but they can also highlight differences in the monetary policy transmission mechanism between countries. Indeed, to come full circle and link Jürgen's and Giuseppe's papers, financial integration also has a bearing on the conduct of monetary policy and the transmission mechanism.

As stated, product structures differ across countries – a prime example is variations in the period of interest rate fixation. In countries such as Ireland, Italy and Spain, a large proportion of households have variable or very short-term fixed-rate mortgages. In other euro area countries, such as Germany and France, the traditional preference is for longer-term fixed-rate mortgages. These national differences mean that a change in ECB policy rates will have different impacts

across the euro area, although this is also influenced by the size of the mortgage market in the respective countries. Chart 2 shows the developments in interest rates on the stock of mortgages for a sample of countries and for the euro area as a whole. ECB policy rates began to increase from end-2005, but the effects differed. For the euro area, rates increased slowly – by some 52 basis points between end-2005 and February 2008. In those countries with predominantly variable rate mortgages, the interest rate increased more sharply over the same period (in Spain by 194 basis points), but in countries with predominantly fixed-rate mortgages, rates remained flat or actually fell (by 27 basis points in the case of Germany).

The household income effect will, therefore, be different across the euro area. The harmonised interest rate statistics provide these invaluable insights into the workings of the transmission mechanism, enabling policy-makers to better assess how their actions will affect the real economy. Work is currently ongoing to update the Interest Rate Regulation, as I alluded to earlier; further breakdowns will facilitate better cross-border comparisons in the coming years.

Chart 2 Interest rates on outstanding loans for house purchase

(mortgages with original maturity over five years)

- euro area
- Germany
- Ireland
- Spain
- France
- Italy
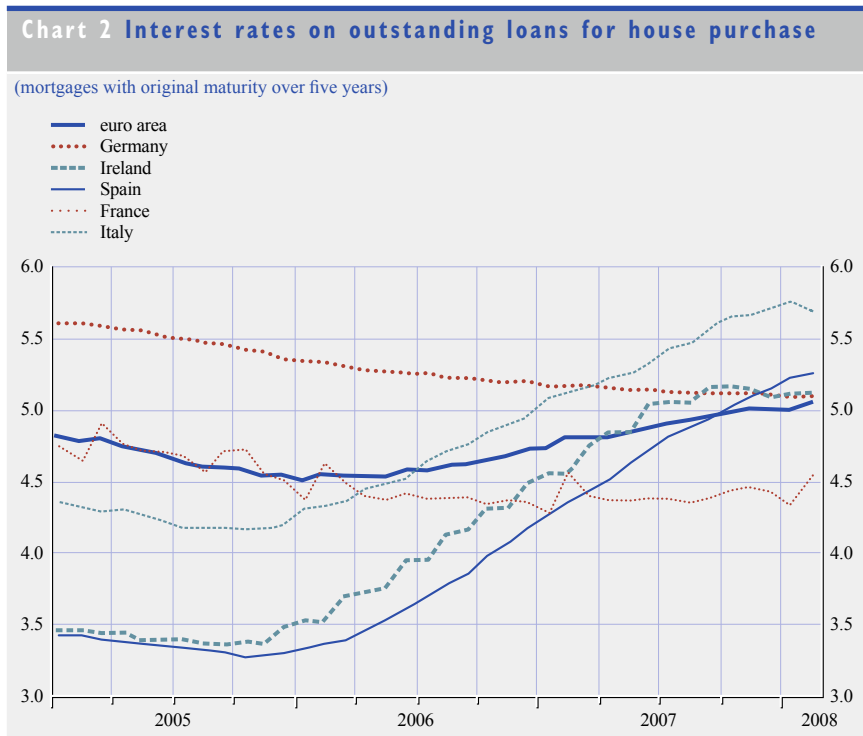
Source: ECB Statistical Data Warehouse.

10 SUMMARY

In conclusion, I would again like to thank the presenters for their excellent insights into the requirements of the users of our statistics. Jürgen has detailed the high-quality data necessary to identify underlying trends in monetary dynamics and how these data need to be cross-checked with complementary information to enhance understanding. Giuseppe illustrated the importance of collecting the 'complete' picture for monitoring financial integration.

Over the last decade we have taken major steps in developing a statistical framework that has been comprehensive and robust, and has addressed most user needs. However, we work in a field that is constantly innovating and evolving. This evolution includes the development of new technologies, new instruments and an increasing level of globalisation. The increasing complexity and evolving nature of financial markets obliges statistical compilers to develop increased flexibility in collecting data without compromising the quality criteria. Increased cooperation between different agencies (both within the EU and further afield) will be required in the future, as well as the full utilisation and leveraging of the existing data.

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DISCUSSION SUMMARY

In his introduction, **Axel Weber** referred to the use of statistics in policy circles, by quoting from Sir Winston Churchill, "I gather, young man, that you wish to be a Member of Parliament. The first lesson that you must learn is when I call for statistics about the rate of infant mortality, what I want is proof that fewer babies died when I was Prime Minister than when anyone else was Prime Minister. That is a political statistic". In general, **Axel Weber** noted that good statistics played an indispensable role in the proper conduct of monetary policy and gave one example – price indices of housing – to show how the implementation of certain statistical concepts would complete the current monetary policy framework. This session was an opportunity to review the use of statistics in a real-time analysis of monetary and other economic developments.

John Hurley in his review of the two papers, discussed ESCB statistical initiatives, the potential for sharing and exchanging data, the introduction of new statistics through more flexible data collection methods, and the remaining data gaps. He acknowledged the importance of interest rate statistics as an indicator of financial integration and of differences in the monetary policy transmission mechanism between countries. The Eurosystem could be more proactive in explaining structural features of the retail financial services markets.

In his response**, Jürgen Stark** stressed the great achievements so far, while recognising that gaps both in quantity and quality needed further work. For example, the ECB closely analyses the alternative source of funding that other financial institutions provide to non-financial corporations. As regards the need for increased flexibility in collecting data without compromising the quality criteria and the stability of the data, **Jürgen Stark** highlighted the need for a pragmatic approach, including both the stability that comes from ECB Regulations, and the flexibility that comes from ad hoc data collection and makes it possible to react swiftly to new developments, albeit with lower data quality.

Giuseppe Zadra stressed that cross-country data comparisons of interest rate statistics are important, particularly for understanding price differences and, therefore, the barriers to integration of EU banking markets.

Aurel Schubert (Director of Statistics, Oesterreichische Nationalbank) mentioned that interest rate statistics do indeed reveal real differences between countries, and that it is necessary for the banking industry to be transparent so that we can understand country differences. He also advocated a more intensive use of the monetary presentation of the balance of payments to interpret monetary developments, particularly in the light of the growth of cross-border business. **Jürgen Stark** confirmed that the monetary presentation constitutes a useful tool to assess the impact of external developments on the monetary conditions. **Giuseppe Zadra** noted that cross-border activities had increased substantially, but apparently this has not yet led to a convergence of retail interest rates across EU countries. National obstacles are still a barrier to retail banking integration.

Coen Voormeulen (Director of Statistics and Information, De Nederlandsche Bank) questioned the usefulness of historical data for econometric modelling in cases where the data can only be estimated by modelling techniques due to a lack of actual data. **Jürgen Stark** said that the ECB sometimes relies on estimated data using synthetic time series to cope with a lack of back data.

Stanley Fischer asked for further clarification on the "right" data frequency needed by the ECB for monetary analysis purposes. In Israel, statistical authorities had considered compiling consumer price indices every two weeks, but the central bank did not support the idea. **Jürgen Stark** confirmed that a monthly frequency is appropriate for ECB monetary policy purposes. A higher frequency might create volatility and uncertainty for users and lead to frequent revisions. On the other hand, it would be preferable for certain data currently released quarterly to be available monthly. **Axel Weber** recalled that during the period of German hyperinflation, wages were paid twice a day so that workers could have enough funds to have lunch; under extreme circumstances, a more frequent compilation might make sense.

Finally, **John Hurley** agreed that it is important to understand differences in banking products across countries. Better statistics are needed to understand the economy, but the tried and tested cost-benefit analysis must continue. He took that view that NCBs and national authorities are committed to improving statistics and providing good quality statistics.

2 FUTURE DIRECTIONS FOR THE COLLECTION AND COMPILATION OF STATISTICS

INTRODUCTORY REMARKS

MIGUEL FERNÁNDEZ ORDÓÑEZ

In this session we will be looking at future directions for data collection and statistical compilation systems. By way of introduction, I would like to make some brief remarks.

Let me first set out some ideas on which I believe we all agree:

– First, we need relevant, reliable and rapidly available statistics so as to be able to take appropriate decisions.

– Second, producing statistics has a cost.

– Third, this cost should be the lowest possible.

The conclusion that we can draw from these three generally accepted principles is that statistical producers should use efficient data collection and statistical compilation procedures; i.e. they should produce the best results at the least cost, while maintaining statistical quality. Efficiency is in fact the key topic in the document we're about to discuss.

If we agree with these core principles, why are there such contrasting positions in the debate on data collection and statistical compilation systems? And, even though we have a high degree of homogeneity in the reporting population and accounting rules for monetary and financial statistics, why is it that after ten years of full monetary union we still use different procedures?

The usual reply is that statistics are closely tied up with the social, economic, financial and institutional structure of each country. No doubt that is true. But I'd like to offer three further possible reasons, which are noted in the document we will discuss, although in a different context:

– The first is that any change in procedures usually triggers a redistribution of the reporting burden between the different parties involved. This shift in burden may take place among compilers (for example, central banks or national statistics institutes, regulators or statisticians); between compilers and reporting agents; or between financial intermediaries and their customers. Therefore, sometimes a more efficient procedure means that one of the participants is forced to accept an increase in its costs. Occasionally, specific sectors seek to reduce their share of the burden even though that entails an

increase in the overall cost. These considerations make it hard to implement changes that move towards greater efficiency.

–   A second factor that works against efficiency is when the institutional framework acts as a brake on progress. In other words, where the framework compartmentalises statistical production and does not allow the exchange and reuse of data among the different statistical producers. This situation may arise in a single national institution, among different institutions in the same country, or at the level of supranational agencies.

–   Finally, the third reason relates to the coexistence of different national, as well as supranational, statistical requirements, and the difficulty of reconciling both requirements.

In connection with this, the document we're going to discuss includes specific proposals relating to the three aspects I have just set out, and which I would like to highlight for the subsequent discussion. For example, the option of collecting information with greater "granularity", allowing for a greater adaptability of the statistics, would involve: a shift in the reporting burden from agents to national central banks; the need to lift the potential obstacles to institutional collaboration procedures and to the reuse of data (processes which also involve a reallocation of the reporting burden); and, finally, the need for a frank analysis of national statistical requirements, so as to be able to bring about greater homogeneity in common statistical collection and compilation systems.

To help us with these considerations, I am delighted that we have the document "Torn between data needs and respondent fatigue – are efficiency gains the philosopher's stone?" which my colleague the Governor of the Bank of Austria, **Klaus Liebscher**, is going to present. We could not wish for a better introduction to the subject of the future of statistical collection and compilation systems, not least because the Bank of Austria, and specifically its Statistics Director and co-author of the document, **Aurel Schubert**, chaired the Statistics Task Force. This Task Force has set out the strategic guiding principles for statistics in the Eurosystem for the coming years, principles which the Governing Council approved some months ago. Another of my colleagues, the Governor of the Central Bank of Cyprus, **Anthanasios Orphanides**, will act as a discussant. He will no doubt offer an interesting perspective of a country that has very recently had to face the statistical challenge that full membership of the Monetary Union entails.

TORN BETWEEN NEW DATA NEEDS AND RESPONDENT FATIGUE – ARE EFFICIENCY GAINS THE PHILOSOPHER'S STONE?

KLAUS LIEBSCHER AND AUREL SCHUBERT

I INTRODUCTION[1]

Modern central banks are both extensive users and producers of statistics. Statistics are a core input for all policy decisions by central banks and are essential for successful central banking. At the same time, central banks have the expertise and the comparative advantage in producing statistics on the domestic as well as cross-border financial aspects of the economy – compiling and distributing statistics are core tasks of modern central banks. The same applies to the Eurosystem with its harmonised but decentralised model of statistics production.

The first decade of Eurosystem statistics has been very successful. First of all, the necessary statistical base for the common monetary policy has been set up in time and "fit for purpose" for the launch of the euro. Over the following years, much has been achieved in terms of euro area statistics in order to close data gaps and to cover new data needs. This has resulted in approximately a tripling of the data output with basically unchanged human resources. Data releases are a prime source of information, not only for policy-makers but also for the market participants trying to understand and to anticipate Eurosystem policies; witness the more than 130 million hits per year on the statistical websites of the Eurosystem central banks. After all, statistics, including central bank statistics, are public goods that should be accessible to all. They are an important element of the public accountability of central banks and a solid base for the evidence-based policy-making that the public increasingly expects.

But the Eurosystem cannot rest on its laurels. The statistical challenges of the second decade need to be identified and faced. New data needs are emerging as the financial sector develops very rapidly, generating new institutions, markets and instruments. Especially the current financial turmoil has highlighted important statistical gaps with respect to new instruments and institutions.

At the same time, the data requests face increasing opposition by the reporting entities and their representatives. Thus, while the first decade was mainly characterised by the necessity to get things done in time, the second decade will put more emphasis on how to do things in the most efficient way in order to free the necessary resources for fulfilling new data needs and to accommodate the statistical challenges of further enlargements of the euro area. This will require – among other things – developing new and innovative forms of cooperation, and divisions of tasks both within the Eurosystem and with statistical institutions outside the

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1   This paper draws on the results of the Statistics Task Force of the Eurosystem. Any errors are the authors' responsibility.

Eurosystem. We will need to enter uncharted waters and create pioneer models for these and other tasks of the system.

At the same time, recent decades and especially the last few years have seen a dramatic expansion in the size and importance of the financial sector. Financial assets are growing much faster than the real economy, both domestically and across borders. Therefore, the relevance of financial market developments – both as drivers of growth and potential risk factors – has been rising dramatically. Policy-makers both inside and outside of central banks increasingly have to deal with financial issues.

But financial issues are a matter not just for policy-makers, but rather for all parts of the economy and society. Households have been accumulating financial assets at an unprecedented speed, partly to compensate for the decline in expected future public pension entitlements. Growing financial assets and wealth will increase the importance not only of financial markets but also of asset prices, risks and risk-mitigating instruments as people increasingly move into riskier assets.

All these developments require an adequate level of knowledge about financial markets, financial products and financial institutions. The basis – the conditio sine qua non – for this knowledge is reliable quantitative information, i.e. relevant statistics. Monetary as well as financial stability require good policies, good policies require good analyses, and good analyses require good statistics. But good statistics require a constant flow of reliable reporting by the market participants. And that is where increasing tensions arise. Central banks producing statistics see themselves confronted with another "incompatible triangle" of more, faster, and cheaper. The dramatic expansion of financial innovations results in rising information needs for policy; the speed of communication and the resulting need for fast policy response mean that data should be available almost immediately; and finally, those that have to supply the basic information, the respondents, see that as a cost factor and become increasingly "fatigued".

In this paper we try to develop some options for dealing with this incompatibility in order to reduce the tensions. We will first address some of the future information needs. We then look at the issue of respondent fatigue and, finally, outline some avenues for enhancing efficiency in the production of Eurosystem statistics in both the longer term and the short to medium term.

2   DATA NEEDS CONTINUE TO ARISE

Based on their policy functions, their closeness to financial markets, their long-standing expertise and their credibility and – last but not least – the public-good nature of such information – central banks are best placed to serve as the providers of such statistics about the financial economy. They are the so-called natural competence centres for financial statistics.

The relevant financial phenomena to be covered by statistics are by no means static – they are more like "moving targets". New and more complex financial instruments are being developed at increasing frequency and speed. These instruments may either complement existing products, compete with them, or even partly or fully substitute for them. In parallel, non-bank financial corporations (special purpose vehicles, insurance corporations, investment and pension funds) gaining in importance. All these developments have the potential to change the transmission mechanism of monetary policy as well as the risk profiles for financial stability.

Therefore, the rapidly developing financial markets need to be covered by rapidly evolving statistics that correctly capture policy-relevant issues, including very complex areas, such as derivatives. As national borders lose relevance, the cross-border supply of and demand for banking products is rising dramatically, creating a growing need to capture these phenomena statistically for both monetary and financial stability analysis.

The recent financial turmoil has – among other things – highlighted an urgent need for more transparency in financial markets. Reliable and harmonised statistics are the key to transparency. Important gaps in the available relevant statistical information have become apparent, gaps that need to be closed if we are to avoid a recurrence of the current problems. Especially, the correct measurement of the allocation of credit risk has been incomplete or even completely lacking. The measurement of the extent and types of securitisations has also been very incomplete or not comparable across countries and industries. Banks' contingent credit exposures, which have turned out to be more important than previously thought, also deserve more statistical attention. It has also become evident that there is an urgent need for harmonised data on housing markets.

The originate-and-distribute model of banking creates a need to gain further insight into credit transfers from banks to other financial institutions (financial intermediaries including hedge funds, insurance corporations, pension funds, etc.) through credit derivatives and securitised loans. New markets in products like credit default swaps and collateralised debt obligations are spreading risk more widely and technology is enhancing trading opportunities in these instruments. The speed of financial innovation requires equally rapid reactions by statisticians in order to stay relevant to policy. Therefore, the "time to market" of new statistics needs to be shortened in parallel with these financial innovations. At the same time, the continuation of statistics on financial products that lose importance needs to be re-evaluated.

One area where rapid action now appears warranted is the scope of the reporting population as specified in the ESCB's basic statistical law (Council Regulation 2533/98 concerning the collection of statistical information by the European Central Bank). It needs to be extended to include insurance corporations and pension funds, which are currently explicitly excluded, thus creating an important statistical gap. Information on these important financial

institutions is required, from both a monetary stability and a financial stability perspective.

There is greater public demand for "evidence-based policy-making" and more interest in the underpinning evidence itself. Policy decisions will increasingly be based on and justified by relevant and reliable quantitative information, and policy results will be more closely tracked by data.

Increased uncertainty and unpredictability of the political, economic and financial environment requires more policy adaptability in general and for central banks in particular. Policy adaptability requires a broad (but also more frequently changing) range of (real-time) data and at the same time transparency and active policy communication. Information from financial markets thus becomes more important for central bank policy-making.

3   PRESSURE TO LIMIT THE RESPONSE BURDEN

Parallel to the identified needs for further statistical information, we observe a trend towards increasing "reporting fatigue". The concurrent developments of fierce European as well as world-wide competition, the quest for shareholder value and the political drive in Europe towards a reduction of the administrative burden has led to greater attention being paid to the costs of statistical reporting, even though statistics constitute only a very limited part of the overall administrative burden.[2]

In 2006 the ECOFIN Council came to the conclusion that "while high-quality statistics are crucial for policy-making in Europe, enhanced efforts are needed to reduce the administrative burden caused by statistics in the EU." This will increase pressures to reduce data demands, maximise the use of existing data sources and coordinate data collection and compilation both within and among NCBs, and between NCBs and other statistical institutions. Policy-makers will, however, have to take good care that this drive for simplification does not backfire and result in a major loss of crucial information.

Some central banks have already set up systems that keep respondents' burden to a minimum. In Austria, for instance, the new balance of payments compilation system has been designed to make reporting as light as possible. Since the quality of the data has to be ensured nevertheless, the central bank statisticians have to shoulder a larger share of the compilation burden. In the production of statistics there is "no free lunch".

One additional avenue that might help to reduce the "perceived, subjective burden" might be to invest in the extended return of useful information to the reporting agents ("customised feedback"), with the potential consequence that

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2   Estimates usually show that only about 1% of the administrative burden put on enterprises is due to statistical reporting requirements (see e.g. Mayerlen et al., 2005).

the overall 'net burden' (the cost of reporting minus the usefulness of the data received back) is perceived as more tolerable.

Statistics compilers might also be helped by advances in technology. The power of the tools is steadily increasing, allowing for the processing and storage of huge amounts of data at faster speed and lower cost. Moreover, as most modern economic activity generates flows of information through informational networks, new technical opportunities to capture relevant data from those networks could be developed. Collection systems have to be very technologically advanced and flexible in order to grasp the most relevant information, generally micro data from which information relevant at some more aggregated level may be derived. For instance, collection systems could be connected to the information systems of the declaring agents (e.g. the companies' ledgers). This will require important efforts by the Eurosystem to keep up with those advances in technology and maintain and develop appropriate skills and tools in empirical economics, statistics and IT. It also calls for proactive cooperation with the reporting agents. Confidentiality obviously needs to be guaranteed.

All these efforts to address the challenge of reducing the respondents' burden might have repercussions on the quality of the statistical output/products. Only statistics that are considered as relevant and reliable and are not challenged can support the credibility of the respective institution.

For the Eurosystem this applies not just to the common European aggregates but also to their individual/national parts. Perceived or real quality problems in one part of the system can create collateral reputational damage for the whole system. Such risks need to be avoided in the interest of credibility. Therefore, efficiency cannot come at the price of major reductions in quality. Eurosystem statistics have to remain "fit for purpose".

4   EFFICIENCY IN STATISTICS – A MULTIDIMENSIONAL CHALLENGE

Wikipedia defines efficiency as "… the idea that a system proceeds with the minimum amount of waste. Efficiency is improved if the amount of 'waste' or 'friction' is reduced." Moreover, "this takes place when production of one good is achieved at the lowest cost possible, given the production of the other good(s)."

But the concept of efficiency is related to that of effectiveness. Here we use a broad concept of efficiency that includes the idea of "doing the right things" as well as "doing the things right". To achieve this we have to define what are the right things, i.e. the statistics needed for the policies of the ESCB, namely monetary policy and safeguarding financial stability, but also for ensuring payment system stability. We need to have information "fit for purpose". This means measuring the relevant economic phenomena, providing data with the necessary detail, quality and timeliness. In addition, the data might – ideally – serve several policy purposes simultaneously. All these aspects have potentially large repercussions on the costs of producing statistics.

Then there is the issue of using appropriate statistical methods and processes to achieve the necessary results. Do we need a census or can we work with sample surveys? What kind of estimation techniques can we use to achieve the needed results? Can we reuse existing information?

Organisational aspects are also important for the efficiency of the statistical production function. How is the work flow organised? What is the division of labour between respondents and compilers? What is the division of labour between different statistical compilers, nationally, within the Eurosystem, as well as internationally?

And finally, efficiency needs to be ensured at *every* stage of the statistical production process, namely the input phase, the compilation phase and the output phase. Indeed, the drive for efficiency must go beyond the statistical production process and take in the entire process, starting from the advent of the information need and the formulation of the respective user need. Achieving maximum efficiency depends on evaluating and optimising all stages of the process.

An additional challenge is to gain insight into interdependencies between different solutions. Some might be complementary, others – however – might result in incompatibilities, i.e. efficiency gains in one dimension might prohibit or offset efficiency gains in other dimensions. Achieving overall efficiency gains in the production of central bank statistics is no easy task. Nevertheless, it is a challenge we have to face and to master.

However, we are not starting from scratch. Efficiency in statistics production is not a new topic for Eurosystem statisticians. Much has been achieved already during the first decade of the Eurosystem. Otherwise, we would not have met all the challenging deadlines or tripled the statistical output with more or less unchanged human resources, as has been achieved with – what E. Domingo Solans once characterised as – a "silent revolution".

Some of the most important elements that are already in place and play an important role in ensuring that the right things are done in the right way deserve mention here:

There is the formal so-called merits-and-costs procedure for all new or expanded statistical demands. Potential users requesting data are asked to define their policy needs and the measure of detail and timeliness they require, while the reporting institutions are asked to calculate the costs such new data reporting would entail (with different options). The statisticians then match the reported merits against the costs and try to develop the most efficient package.

Statistical representativeness of the aggregate data does not (always) require census reporting. Since the start of the Eurosystem, statistics methods have been used to reduce the reporting burden, especially for small institutions. "Cutting off the tail" and "sampling" are methods already in use. Both have helped to reduce the number of reporters for the respective statistics in a major way. Also, the reuse

of monetary data for administrative purposes, namely for calculating minimum reserve obligations, is a tested procedure to alleviate reporting obligations. This is much appreciated by the reporting agents, as it prevents a double reporting necessity. Survey approaches are also already being applied successfully by several Eurosystem countries, for example for external statistics.

But several member states have already achieved important efficiency gains through the allocation of tasks. Specifically, via formal and permanent cooperation with the respective national statistical institutes (NSIs). In addition, statistical cooperation with banking supervisors is already being successfully practiced – albeit to different degrees – in several countries.

There are also some ongoing projects that may yield important efficiency gains, like the common Eurosystem effort to establish a Centralised Securities Database (CSDB). This CSDB, including the reference micro data on all individual securities issued, is expected to accommodate a multitude of statistical products and thus to become a major step towards more efficiency. On the output side, the Statistical Data Warehouse (SDW) that was established by the ECB and can be used by NCBs might play a central role for an efficient distribution of Eurosystem statistics to a very wide user community.

The quest for efficiency is therefore nothing new for statisticians but already well established, maybe more so than in other fields of central banking. Nevertheless, the developments we mentioned above – like financial innovation, respondent fatigue, the desire to reduce administrative burdens as well as increased public sector accountability – make it imperative that additional efficiency gains are identified and implemented where feasible.

5   THE PATH TOWARD FURTHER EFFICIENCY GAINS

The initial question to be tackled is which type of statistics we want to produce more efficiently. Do we want to optimise only the production of those data required for Eurosystem aggregates, or do we plan to optimise the whole statistical production of our central banks, i.e. including all the national data requirements? The answer to this question will have important repercussions on the optimal solution(s) available. We need to avoid optimising the compilation of euro area statistics at the expense of creating inefficiencies on a national level. Ideally, the two should go hand in hand, but we have to be aware of potential conflicts of interest. Coordinating on a national level with different statistics producers might hamper coordination on a Eurosystem level if arrangements differ from one country to the other. The same might apply if the link between monetary and supervisory data production is organised in a very country-specific way. Cooperation in new models of production therefore has to remain voluntary, respecting national specificities and preferences. However, over time a convergence of the models might be possible and even desirable. In economics we define the long run as the time horizon when everything is flexible. Legal and institutional arrangements can also be changed over time. Learning from best practices in other countries might also be an important driver towards efficiency gains.

5.1 The long-term vision of the statistical production process for the Eurosystem

For a long-term vision for the most efficient statistical production process in the Eurosystem we have to ask ourselves, how would a (comparable) multinational enterprise with 15 or more national subsidiaries approach such a task? The long-term vision must then be to work like one organic system that optimises the multinational production process. Given the existing differences in national financial markets, languages and traditions, as well as the expediency of taking advantage of closeness to the reporters, an optimal system for the Eurosystem would not be centralised. Under these circumstances the most efficient solution seems to be a network, with harmonised technical standards, a clear division of tasks, no duplication, common infrastructures, maybe even centres of excellence for specific tasks and decentralised contacts with reporting agents and with data users.

The Eurosystem's statisticians therefore face the longer-term challenge of developing such a model, or several options for such a system, by building on the respective comparative advantages. Ideally, it should optimise the production of euro area as well as national data at the same time. The model would have to encompass all the statistical, organisational, legal, technical, and governance issues that need to be resolved for such a cross-country production network. But in view of the large diversity in euro area statistics and across reporting institutions, financial markets, and institutions to be covered, different solutions for different statistics may be conceivable. One model might not fit all statistics.[3] Examples in the financial industry show that such solutions are both technically feasible and highly efficient. As a first step, it may be most appropriate to apply such a consolidation for new statistics that have yet to be developed.

These are all issues to be studied thoroughly during the next few years by the respective experts, mainly statisticians, IT experts, and organisation experts, but also legal experts. This is a very challenging task, but one worth pursuing with determination. In addition, it could serve as a model for other areas.

As this is a rather revolutionary longer-term vision, its feasibility should first be evaluated within a more limited framework. The CSDB is a small model of such a network. A common databank for foreign direct investments would also be a logical candidate for evaluating the feasibility and the preconditions for such euro area-wide production networks.

5.2 Short to medium-term initiatives

In the three stages of the statistical production process mentioned before – input, compilation and output – potential initiatives for reaping short to medium-term

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3   The 'Organisational principles for the fulfillment of Eurosystem functions by all members of the Eurosystem' explicitly state, as principle No. 9, '[to] exploit synergies and avoid duplications'. In doing so, 'potential synergies and economies of scale shall be identified and exploited to the extent feasible'. According to the Eurosystem mission statement, this should be done 'with due respect to the principle of decentralisation'.

efficiency gains are possible and should be evaluated with a view to implementation.

On the *input* side, the goal should be that all data are collected only once. Any form of double reporting or redundant collection should be discontinued or avoided. Data already available – for whatever reason – should be reused if found useful for (other) statistical purposes, while strictly safeguarding their confidentiality and ensuring that the sharing is legally allowed or explicitly agreed by the reporting agents. Likely candidates are existing credit registers as well as balance sheet data from balance sheet offices or supervisory information. Experience in some central banks has shown that the use of such data for statistical purposes can lead to a very significant reduction in the response burden, higher data quality and lower costs to society.

On a national level, a formalised exchange of administrative data with institutions outside the central bank like the NSIs or the tax authorities would also help to reduce reporting costs. An important precondition and help would be the maintenance of common company registers with the NSI. Extending this idea across national borders one could think of common international data bases – allowing for the exchange of (confidential) micro data e.g. on significant cross-border mergers and acquisitions that need to be recorded symmetrically in the respective statistics of both affected countries.

The integration within each central bank of overlapping parts of the statistical production will avoid double reporting and enhance data consistency while improving overall efficiency. This integration could even take place at the micro data level, i.e. through a fully integrated data collection by NCBs and the definition of aggregation procedures tailored to different statistical purposes. Such an approach is conceptually appealing, but would require considerable coordination efforts within the central bank and could mean a major change for many Eurosystem NCBs. An intermediate solution is the sharing of aggregate data (building blocks) between different statistics, which could be facilitated through the application of common taxonomies. Finally, experience in the Eurosystem has shown that an efficient integration of all statistics, or at least those serving the Eurosystem tasks, is greatly facilitated if their production is concentrated in one functional area at the central bank, headed by a chief statistician.

While supervision is not an ECB task, several of the euro area NCBs that are nationally responsible for supervision have already integrated or linked their supervisory data collection with the statistical MFI or investment fund reporting framework. The initial focus of alignment will be on potentially overlapping requirements for the supervisory data collected by an NCB, but this may be extended, where appropriate, to collaboration agreements with (outside) financial supervisors. More far-reaching collaboration steps at the European level may also hinge upon the speed and intensity of further harmonisation of supervisory reporting across the EU. A first prerequisite may be a reference to the possibility of collecting data for financial stability purposes in the basic legislation governing ESCB Statistics (EU Regulation 2533/98).

Another substantial first step would be the joint development of basic concepts and definitions by statisticians and supervisors. This may also include an investigation into the use of common reporting formats and taxonomies (e.g. XBRL) for more integrated reporting.

As far as the statistical *compilation* phase is concerned, efficiency might result from the use of modern statistical techniques. Currently, most Eurosystem statistics are collected and compiled in a way that ensures country as well as euro area representativeness. Where only euro area data are required, the use of advanced statistical techniques might reduce the number of (credit) institutions that are obliged to report. This would require the selection of reporting agents in line with euro area-based criteria. The system should allow each country to collect additional information within the same collection process if it also required representative national results. While the reporting burden would thus remain unchanged for the latter countries, it would be reduced in the countries that do not require such (detailed) fully representative national data, and also in the euro area as a whole.

However, statistical techniques that reduce the reporting population may not be fully applied where the data collection also serves supervisory or administrative purposes that require a full census (e.g. for minimum reserves purposes).[4] The enhanced use of common Eurosystem statistical techniques in, for instance, quality control, extrapolation, back data estimation, and seasonal and working-day adjustment also offers possibilities for cost savings and more harmonised, better quality statistics. The wider application of statistical techniques requires, however, the availability of well-trained statisticians at the central banks.

Substantial savings, although probably mainly in the medium to long term, would be generated if central banks shared own-developed statistical tools (i.e. software). A further step could be the common development of such software in specific central banks, which would require an enhanced governance structure and coordination, but would also save development time as well as server and maintenance costs.

Several statistics producers operate at the national level. Cooperation between these institutions could generate significant synergies.[5] An allocation of tasks according to the respective comparative advantages – central banks for financial statistics, statistical institutes for non-financial statistics – would offer the two-fold advantage of better statistics and avoidance of duplication. The Austrian example of six years of such close cooperation could be followed by other countries. Specifically, the joint development and maintenance of a single business register, including fully harmonised identification and classification of the reporting units

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4 In these cases the sampling of detailed breakdowns, which are not required for administrative purposes, may still be feasible and could be investigated further.
5 In Austria, the Oesterreichische Nationalbank and the national statistical institute, Statistics Austria, signed a formal and far reaching cooperation agreement in 2002 (renewed in 2007) as the basis for a very close cooperation in several fields using the comparative advantages of the two institutions and avoiding double reporting. Other countries have already followed similar paths; see Irving Fisher Committee (2008).

by NSIs, supervisory authorities and statistical departments of central banks could lead to efficiency gains, a substantial reduction in the burden for reporting agents and quality improvements in statistics. In the longer term, these registers could even be linked into a single European business register.

In order to avoid duplication while providing consistent data, all agencies involved in the production of statistics should, where possible, apply the same concepts, definitions, classifications, reporting forms and reporting formats (e.g. XBRL) at the national level. Again, exploiting comparative advantages may in most cases entail that the NCBs collect data from the financial corporations, while the NSIs mainly deal with the other sectors. The application of harmonised approaches at the national level will also facilitate further integration at the Eurosystem level.

Another aspect of efficiency is the time it takes to deliver useful information on newly emerging phenomena. Rapidly changing financial markets require fast adaptation of statistical concepts and collection systems. A short "time-to-market" is almost a precondition for providing "fit for use" statistics in such a rapidly changing environment. This requires the early identification and broad assessment of such new phenomena that have a (potentially) relevant effect on policy.

However, before the statisticians are asked to set up new systems, we need a quick understanding and initial analysis of the policy relevance of the new phenomena by the respective analysts in cooperation with the statistical experts. New approaches for such cases should be developed that might not require a full-scale collection system and a new legal instrument.

The dissemination of statistics – the *output* – is an integral part of the statistical production process. Reaching more users with the same amount of data is one aspect of increasing the efficiency of the statistical production process, thus reducing the 'cost per user'. Useful data feedback is also an important aspect for securing reliable reporting by the respective reporting agents. At the same time, the statistical data available in the Eurosystem provides the system with a wide array of possibilities for providing services to the general public as well as to different subgroups. and so to link up with the public as both reporters and "consumers" of data. In addition, packaging Eurosystem statistics to serve the needs of specific target groups (including the reporting agents themselves) may enhance public support for the Eurosystem as a whole and may also reduce the perceived reporting burden.[6] The system, however, needs to take a strategic decision to proactively use statistics for its communication and to accept a role as a "statistical competence centre for the euro area". By reason of its global economic importance, the Eurosystem has also a responsibility to provide access to its statistics and the respective metadata for economic and financial research.

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6   This is in line with the third strategic intent of the Eurosystem, which addresses 'Accountability, credibility and trust. Closeness to the citizens of Europe'. In that respect, '… the Eurosystem will keep abreast of the transformations affecting money and financial markets and will be sensitive to the public interest and market needs.'

Many of the potential efficiency gains identified above are only fully achievable if the statistics producers in the euro area cooperate to the maximum extent. The current legal framework – especially concerning the exchange of confidential data between different statistics producers – is an obstacle to such an efficient solution. Exchanges of confidential data between statisticians within the ESCB/ Eurosystem as well as with those of the European Statistical System (ESS)[7] for statistical purposes could offer significant efficiency gains, by reducing respondents' reporting burden, and an improvement in quality. It would be a true win-win situation.

The respective basic statistical legal acts of the ESS and the ESCB should include such provisions. The ongoing revisions of these legal acts form a perfect opportunity for including such provisions and so considerably reducing the administrative burden.

A further precondition for some of the identified synergies and efficiency gains is dialogue and coordination of information needs between those responsible for both price stability and macro financial stability and those in charge of supervision.

Another important way of achieving efficiency gains is a frank assessment of the further need for *national* financial data and a commitment to action in this area. This has important repercussions for crafting statistical production processes in the most efficient way, for both monetary stability and macro financial stability purposes. In light of the common single monetary policy, national data of publishable quality might appear to be no longer necessary. However, financial integration is still incomplete, and therefore the transmission mechanism of the common monetary policy might be nationally quite diverse, thus prolonging the need for national monetary information. In addition, national economic policy-making requires national data, like national balances of payments. Also for financial stability purposes, national data – like financial accounts or retail interest rates – remain crucial. However, different levels of detail might be required at the euro area level than at the national level. The size of the country in question might also be relevant where only euro area aggregates are required.

Finally, efficiency gains by means of new forms of cooperation hinge on an openness for embarking on new forms of collaboration. Collaboration models replace autonomy with mutual dependencies. Potential risks related to these dependencies need to be mitigated by crafting adequate governance rules, though some remaining risks need to be accepted.

The Eurosystem/ESCB is and will be an undisputed global player in the area of monetary, exchange rate and financial stability policy. Being a global player brings international responsibilities, including a proper dissemination and analysis of financial data as well as the education of data users. The Eurosystem

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7   The national statistical institutes and Eurostat.

will have to provide statistics on the euro area as an international public good. At the same time, the Eurosystem has a comparative advantage in providing financial data for the euro area, and in this context, can help to foster and strengthen a euro area/European identity ("make Europe tangible"). It also needs to make financial information more widely accessible, and more relevant to a wider audience. This will include the need to reassess data/information needs from a global perspective.

7 CONCLUSIONS

In central banking, decisions have to be made in real time with a measure of uncertainty. A sound statistical system helps to reduce the level of uncertainty and so lower the likelihood of sub-optimal decisions. It is thus an investment in the stability of the monetary and financial system. As this crucial task of "lifting the fog" comes at a cost, both for central banks as producers of statistics and for society as suppliers of data, it is a continuous challenge to ensure that the merits outweigh the respective costs. In evaluating this balance, we should consider the costs of unfounded decisions or decisions resting on an incomplete or even faulty basis. One important element for a positive balance is to set up compilation systems that are efficient. Efficiency, however, is not a static concept but calls for continuous monitoring and adaptation of processes. Especially with the advent of the Eurosystem, not only have the statistical demands of the users changed radically, but the challenges of producing euro area statistics have as well.

The information needs of policy-makers are changing rapidly as the underlying developments in the economy, and especially in the financial markets, evolve with increasing speed. In light of the rather limited resources available to central banks for their statistical sections and the growing demands for limiting the reporting burden on respondents, statistical production processes need to be as efficient as possible. Efficiency gains are mainly needed to accommodate new data demands at both the national and European policy level. This applies to all stages of those processes, from the identification of a data need by policy-makers and analysts up to the dissemination of final results. Optimising these processes cannot be done by the statisticians alone but requires the active cooperation of users, reporting agents, legal experts and those in charge of the information technologies used.

There is a need for strong and continuous dialogue and cooperation between the statisticians, the "masters of the data", and monetary and financial stability analysts. The data needs of the monetary and the financial stability analysts might be rather similar. Early coordination might thus avoid double reporting. Different demands might be justified due to different analytical needs, but this needs to be clarified and verified before the central bank statisticians approach the respondents.

Efficiency gains are achievable but they are by no means a "philosopher's stone". This "lapis philosophorum" is a legendary substance, supposedly capable of turning inexpensive metals into gold. Statisticians are not alchemists.

But let us show that by cooperation and collaboration within the Eurosystem, as well as with other statistical producers, we can achieve important efficiency gains and reduce the respondents' burden. This should enable us to free resources for the new challenges coming from financial innovations. Let us also stop viewing central bank statistics as a burden or pure cost factor. As Bill Poole, President of the St. Louis FED observed recently, "of all things on which we spend money in the Federal Reserve, surely the return on our data services is among the highest." Thus, let us consider them as what they really are, namely a valuable central bank asset, almost like gold.

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DISCUSSANT'S REMARKS

ATHANASIOS ORPHANIDES

Considerable wisdom accumulated over the past decade is summarised in this paper. As you might imagine, this makes it hard to fulfil the role of a critical discussant. Instead, I will present a selective summary of the ideas I find most important in the paper – expressing my broad agreement. I will then raise some related questions that remain open.

It is widely accepted that good quality statistics are an invaluable tool for policy-making. As noted by Governor Liebscher, rapid financial innovation and globalisation pose several new challenges to the statistical function. The speed of innovation requires new statistics, while recurrent financial stress situations increase the demand for relevant and timely statistics that serve as early warning indicators. Indeed, the recent financial turmoil has highlighted potential gaps in the statistical framework, and particularly the lack of harmonised data on credit risk transfer through structured financial instruments. The need for central banks to monitor market developments in a timely fashion, to identify potential market disruptions and, hence, improve monetary policy and macro-financial stability analysis, has encouraged initiatives for a coordinated approach, possibly even a global initiative. A dynamic world economy demands a dynamic statistical system, and central banks, such as the Eurosystem, are the natural competence centres for providing financial statistics.

While the demand for high quality statistics will keep increasing, the drive to reduce the administrative burden put on the economy has led to a high priority being put on limiting the response burden. The trade-off between ever-increasing statistical needs and the "fatigue" of the respondents needs to be successfully tackled.

As mentioned in the paper, the Eurosystem statistical function has succeeded in tripling statistical output with basically constant resources and has generated a wide range of harmonised and high-quality euro area statistics. However, efficiency can be further improved, thereby saving resources and creating room to address the new statistical challenges. I read this to be the key message in the paper.

The authors outline possible avenues to increase efficiency in all stages of the statistical production process – input, compilation and output – based on coordination and collaboration. Some could be implemented in the near future and others in the longer term. Implementation of any potential solution requires further in-depth analysis and investigation, while the interdependencies between them pose additional challenges. The paper covers many interesting proposals. I will highlight some key elements which I find to be of particular relevance for our discussion.

According to the authors, reaping efficiency gains to the full extent would require, among other things, developing new and innovative forms of cooperation and division of tasks both within the Eurosystem as well as with partners outside the Eurosystem, such as national statistical institutes (NSIs) and financial supervisors. The goal should be to collect data from reporting agents only once and share them among different users to the maximum extent possible. I believe this principle can be universally endorsed.

As regards cooperation with external partners such as financial supervisors (extra-Eurosystem collaboration), national collaboration models among Eurosystem central banks seem to differ from country to country. Several factors influence collaboration strategies, including the national legal framework (defining NCB competences). Naturally, those NCBs that have supervisory and financial stability competences are in an advantageous position. In this respect, integration at the euro area level may be time-consuming and may reduce the flexibility required by the users. These potential inconveniences need to be balanced with the benefits.

With regard to cooperation between NCBs and NSIs, the exact modalities of the division of labour will depend, at least in the medium term, on national realities (for instance, which institution currently compiles the current account of the balance of payments or the financial accounts for all sectors of the economy). Nevertheless, for the purpose of eliminating duplication in data collection or compilation by the two institutions, it may be necessary to review the division of tasks, based on comparative advantages, at the national level and possibly at the European level through the Committee of Monetary, Financial and Balance of Payments Statistics (CMFB). Most importantly, enhanced cooperation would improve consistency between the different statistics and ensure their comparability and usefulness.

Another important idea stressed by the authors is that the reuse of data is most efficient if information is shared at the micro data level. We all recognise that the collection of aggregated statistics is becoming increasingly burdensome with lead time for design and implementation. Is this sustainable in an era of faster financial innovation with a short "time-to-market" being almost a precondition to provide statistics "fit for use"? Increased use and sharing of micro-data seems especially promising. As the reporting burden increases with each breakdown required, pioneer models where the information reported is simple and remains unchanged with new or amended statistical requirements could provide the solution.

Let me just add that I find the example of the Centralised Securities Database (CSDB) particularly illuminating for demonstrating the potential in this direction. It is pioneering in technical, statistical as well as organisational terms and its success may pave the way for similar approaches to be adopted in the future.

Gains in efficiency may also result from the introduction of euro area-wide criteria for selecting the reporting population (statistical techniques, such as sampling or cutting off the tail and so on). Criteria at the euro area level could reduce the

number of institutions that are obliged to report, as well as reducing the cost to the producers of statistics. The resulting cost savings may be substantial in small countries like Cyprus.

However, there may still be different statistical needs across countries, as financial integration has not yet been achieved in all fields, especially in retail banking. Also, if we take into account that data may also be needed for national statistical products (e.g. for the national accounts) or where MFI statistical and supervisory reporting systems are integrated, the benefits of such techniques may be limited. It is possible to reap the full gains from these approaches if the results only need to be representative of the euro area as a whole. As suggested by the authors, if representative national results are also required, the system should be flexible enough to allow each country to collect additional information. However, even in this case there should be some scope for reducing the burden.

Further IT harmonisation and sharing of tools is another way to improve efficiency. It is clear that advances in technology create new opportunities for developing sophisticated and more efficient and flexible systems; at the same time, the collection, production and publication of statistics rely heavily on IT tools.

It has been estimated that substantial resources, around 30% of total resources in statistics, are devoted to statistical development and infrastructure. This suggests that there is a substantial potential for efficiency gains in this area. Also, in view of the significant level of resources required as a minimum for statistics in any NCB (particularly small NCBs), a pure country-by-country development of the collection and compilation systems for all Eurosystem statistics is unnecessarily costly. This may be mitigated by taking advantage of common tools.

An example of progress in this area is the Statistical Data Warehouse (SDW) which was created by the ECB. The SDW is a comprehensive output database that is now being used by the ECB, the NCBs and external users. For the smaller NCBs that may not currently have an elaborate national database, this central data warehouse offers a potential important benefit, i.e. saving the costs of building and maintaining one. Moreover, some NCBs, including the Central Bank of Cyprus, are already contemplating relying on the SDW if the common database is supplemented with additional and locally needed data. This will become easier as further automated feeding into analytical applications is facilitated.

All in all, I am broadly in agreement with the suggestions in the paper. But not all issues are completely resolved. So I would like to conclude with six questions:

1) The merits and costs of all *new* statistical needs are formally scrutinised in order to assess their policy relevance. But are the *presently produced* statistics assessed as thoroughly and critically? In the face of financial innovation and market developments, do we need to re-evaluate their importance? Arguably, the production, use and evaluation of statistics are fundamentally interlinked. Continuously evaluating the usefulness of existing data and discontinuing series that are no longer useful can lead to savings in collection efforts.

2) Our discussion focuses on data collection efforts at central banks. But are NCBs the best suited agencies for the collection of all pertinent data from financial institutions? In some cases, for example regarding data from Insurance Corporations and Pension Funds (ICPF), this may not be obvious and the answer would depend on the institutional arrangements in place in each country. In some cases, a cooperation agreement between the Eurosystem, or the NCBs, and the competent supervisory authorities could suffice in providing an appropriate framework for the Eurosystem to obtain such data.

3) Are there limits to the Eurosystem collaboration and possible integration that can *actually* be pursued at the euro area level? Because some NCBs also have regulatory responsibilities while others do not, there may be limits to common collection and reporting procedures. Differences in the responsibilities of NCBs may thus limit collaboration.

4) Could the effort to create an all-purpose vehicle that integrates the various data needs result in an overly complex model that does not fully satisfy user needs and could adversely affect quality? That is, is there a trade-off between simplicity and completeness in data collection and management?

5) All in all, are policy-makers willing to incur (and should they be willing to incur) short-term costs and depart from well-functioning systems in order to implement a more comprehensive and harmonised data collection model over the medium to long term? This question regards how one might go about implementing a transition to a common system that may be universally beneficial in the long run but may seem unnecessarily costly for NCBs with well-functioning data collection and reporting systems already in place. Sacrifices might be needed by some NCBs for the sake of achieving harmonisation and integration in the statistical systems across the Eurosystem/ESCB.

6) Is the current level of dialogue between data users and collectors sufficient to engage in effective cost-benefit analysis of various data collection efforts? Would greater centralisation/harmonisation further enhance or hinder this analysis?

The answers to these questions are not necessarily clear cut. The precise best approach to pursue increases in efficiency may depend on the answers. Regardless, best effort towards raising efficiency should continue. For efficiency gains could well be the philosopher's stone.

DISCUSSION SUMMARY

Miguel Fernández Ordóñez opened the session with some brief remarks and stressed the importance of cooperation. He set out generally agreed principles for the efficient production of statistics and offered three possible reasons why the debate continues. The first was the distribution of the costs of producing statistics; the second was inflexible institutional frameworks which do not allow the exchange and reuse of data; and the third was the reconciliation of national and supranational statistical requirements. Specific proposals for discussion included: the option to collect information with a greater "granularity", allowing for more adaptability of the statistics and shifting the reporting burden from economic agents to national central banks; the need to lift the obstacles to institutional collaboration and the reuse of data; and, finally, the need for a frank analysis of national statistical requirements, so as to be able to bring about greater homogeneity in Eurosystem statistical collection and compilation systems.

Athanasios Orphanides concurred that the main message in the paper by **Klaus Liebscher** was that efficiency could be improved further and that the key suggestions in the paper raised six broad questions for further discussion.

First: the paper concluded that the merits and costs of new statistical products are to be studied. Moreover, is this appropriate to existing statistics? Second: are NCBs the relevant institutions for all financial institutions' data collections? This would depend upon national arrangements for data collection. Third: are there limits to collaboration models for euro area statistical compilation and integration? Fourth: would a (complex) cost-benefit model affect the trade-off between completeness and the efficiency of the statistics collected? Fifth: are policy-makers willing to pay the short-term costs and depart from well-functioning systems, to implement a more comprehensive and harmonised ESCB data collection model? Finally: is the level of dialogue between producers and users good enough to evaluate future statistical requirements?

In his reply, **Klaus Liebscher** considered that in most cases European NCBs are best prepared for the collection of monetary and financial data, including statistics on insurance corporations and pension funds. It depends upon national arrangements, but cooperation with the national statistical institutes and the financial supervisory authorities is important. Cooperation should provide confidentiality assurance and effective governance, which in turn would lead to mutual acceptance. He also stressed the importance of the cost-benefit analysis for each new data collection.

Finally**, Eduardo Rodríguez-Tenés,** (Director of Statistics, Banco de España) suggested that we might consider labelling some statistical products as negative priorities, an issue that the EU Commission is already addressing.

THE CRUCIAL ROLE OF STATISTICS FOR CENTRAL BANKS: PRESENT AND FUTURE[1]

STANLEY FISCHER

I would like to begin with a quotation from Lord Kelvin, which is engraved on the outside wall of the Social Science building at the University of Chicago: "*when you cannot measure, ... your knowledge is of a meagre and unsatisfactory kind.*" This led to a retort by Frank Knight, best known today as the originator of the distinction between risk and uncertainty, but always a sceptic, who is reported to have replied "*and when you can measure, your knowledge is also of a meagre and unsatisfactory sort.*"

Actually, Kelvin was aware of this problem, and the full quote is "*I often say that when you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in your thoughts advanced to the state of Science, whatever the matter may be.*"

Why do we need and collect data? From the viewpoint of the policy-maker, it is to know where we have come from, to try to figure out where we are – which in the case of real activity is frequently difficult – and to use that information to predict where we are going. From the viewpoint of the researcher, it is to try to improve our knowledge, to make it less unsatisfactory, and to try to advance towards "the state of Science".

Goods price data have been available for many centuries, including data on wheat prices since the thirteenth century, and price data for financial assets have also been available for centuries. But it took a long time, and the major theoretical breakthrough of Keynesian economics, to work out the framework in which we now analyse the macro economy and to develop the concepts of aggregate activity – GDP, GNP and their components – that are now in daily use. The creation of the framework of national income accounting inspired a Nobel Prize in Economics (in 1984) for Richard Stone.

What data should we collect? There is no need to talk about a general need for more data. We are beset with every type of data, even if often the data we would like to have – for example close to concurrent data on real economic activity – are not available. What we need is a principle of what data to collect and how much to invest in the collection. The principle is simple and obvious: that the marginal benefit from collecting a particular number or set of numbers should be greater than or equal to the marginal cost of collection. The discussion of this issue at

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this ECB Conference has focused on marginal cost, in terms of the costs to the collecting agency of collecting a particular series or group of data, but the costs to suppliers of data are likely to be larger, even if more difficult to measure. Companies are asked to supply huge amounts of data, without being sure what use is made of them, and that too is a cost that should be taken into account.

Difficult as it may be, we also need to take very seriously the assessment of the marginal benefits from the use of data. Data are typically a public good; the marginal benefit of data to society is equal to the sum of the marginal benefits to individuals. With access to data on the web, the marginal cost of distributing a particular data series once it has been produced is close to zero, so the question has to be, "Will the use of these data by individuals and institutions justify the cost of collecting them?"

Looking through any database or statistical yearbook, one finds many series that seem to be of no use to anyone. And yet, they may be of use to someone sometime, which may justify their collection – this could be called the speculative supply of data. It is of course difficult for the collectors of data to anticipate precisely which data and which particular data series relating to a particular concept will end up being most useful. Nonetheless I suspect that we have a tendency to collect data because we feel that more information is always better than less – and hence the ongoing need for cooperation between collectors of data and researchers and other users of data, who are better equipped to judge what data may be needed and what data may be useful.

Another tendency with respect to the collection of data may be the search for the Holy Grail – the belief that there is a number that, if only we could quantify it, would enable us to run economic policy, or resolve a research issue, much more effectively. On the policy side, one example is the natural rate of unemployment, which at one stage was regarded as the concept which, once we knew its value at every period, would enable us to know whether inflation was about to increase or decrease. A second example is the real rate of interest, which many believed could be the key to formulating monetary policy. Indeed, one of the reasons for introducing index bonds in the US was for information purposes, based on the view that if the real rate of interest was too low, inflation and excess demand would somehow express themselves somewhere in the economy, and similarly, *mutatis mutandis* if the real rate was too high. However, it turns out that even when such concepts have been quantified, while they typically provide useful information, they are not on their own sufficient statistics to determine the correct interest rate or other monetary policy decisions.

I turn next to the issue of data quality. Here I believe the international community has contributed a great deal. I was fortunate enough to be at the IMF when the data initiatives – particularly the SDDS (special data dissemination standard) and the GDDS (general data dissemination standard) – were developed following the Mexican crisis that broke out at the end of 1994 The development process included intensive collaboration between the Fund and the statistical agencies of member countries. A key driver of the process was the fact that at that time foreign exchange reserve data were published by Mexico only twice a year, and

with a lag. Thus, the loss of Mexican reserves during 1994 was not generally known. Similarly, in the cases of Thailand and Korea in 1997, the state of the reserves was not known to the public. As a consequence, the authorities in each case had more time to deal with the crisis before market reactions would have forced them to take action – but they also had more time to make mistakes, and intensify the crisis when it did eventually happen.

The SDDS project took a massive effort of cooperation by the IMF with the other international agencies, including the World Bank and the United Nations, and with countries producing data. This was a very successful initiative, to which by now 64 countries have subscribed. The SDDS approach – whose development owes a great deal to Carol Carson, who became the Director of the IMF Statistics Department during that period – established not only rules for disseminating data, but also a standard for what data ought to be disseminated.

The SDDS has four dimensions of data dissemination: (i) data coverage, periodicity and timeliness, (ii) access by the public, (iii) integrity and (iv) quality of the disseminated data. As the SDDS "Guide for Subscribers and Users" notes: "Although quality is difficult to judge, monitorable proxies, designed to focus on information the user needs to judge quality, can be useful." The proxies suggested are (i) the dissemination of documentation on methodology and sources used in preparing statistics; and (ii) the dissemination of component details, reconciliations with related data, and statistical frameworks that support statistical frameworks that support statistical cross-checks and provide assurance of reasonableness. The sophistication of this approach is commendable.

Possibly the most serious problem that arose at the time of the formulation of the SDDS was in securing agreement to the publication of reserves data. This disagreement was based on how central banks viewed the foreign exchange markets. Some central banks, some in Europe, who believed that the foreign exchange market is one in which the authorities contend with speculators, wanted information about the state of the reserves to remain secret long enough for the published information not to be relevant to potential speculative activity by the time it was published. Some, who doubted that speculation was an important factor in the markets, wanted the data published as soon as possible, so that market participants would have all relevant information. Others, who did not take a stand on the role of speculation, but were concerned about the potential for the authorities to dig themselves deeper into the hole if their actions were not monitorable, also wanted rapid publication of the reserves data. A compromise was found in less frequent publication with a longer lag.

The SDDS has become a valuable benchmark for the dissemination of data.[2] As with many international standard-setting initiatives, it is probably more valuable for a small country like Israel, which would like to achieve the highest standards of performance – in this case for data dissemination – than for the most advanced countries that have already achieved that standard. Nonetheless, it turned out that

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2   See *The IMF's Data Dissemination Initiative After 10 Years*, edited by William Alexander, John Cady, and Jesus Gonzalez-Garcia, IMF, 2008.

in some respects, some of the most advanced countries also had to adjust aspects of their data dissemination in order to meet the SDDS requirement. The SDDS reports quarterly on observance, enabling countries to measure their performance against the requirements of the standard.

Cady and Pellechio (2008)[3] report evidence that countries that meet the standard achieve a reduction in their borrowing costs. This is a result worth publicising, for it provides an additional incentive for countries to improve their data quality.

While the SDDS sets standard for the dissemination of data, the GDDS – subscribed to by 88 members – essentially provides information on how to run a statistical service to countries that will eventually want to subscribe to the SDDS. Similarly, the Statistics Quality Framework (SQF) of the ECB[4] should be very useful to central banks in their data collection and dissemination practices. Among the main objectives of the SQF are to "provide a benchmark for quality to ECB staff working in the area of statistics" and to "contribute to maintaining the public's confidence in the ECB statistics upon which policy analysis and ultimately policy decisions are based". Although the emphasis is on the ECB's use of statistics, the standard that is recommended is of course one of more general applicability and utility. Thus, the SQF is also likely to help improve the quality of statistics, particularly those used and disseminated by central banks.

Let me now try to draw things together. First, when collecting data, we need to ask why we are doing so and what the benefits and costs of doing so are likely to be. Specifically, what use will we, or anyone, make of the data? And what uses could be made of them in the future? In addition, we need to take account of the costs of collection, including the costs to the data providers. I must confess that when I have found myself filling out a census form or on the receiving end of a questionnaire, I have usually responded unenthusiastically, reminding myself to do my duty. The questions of benefits and costs are difficult to answer, and doing so requires collaboration between the collectors of data and their current and potential users.

Second, central bankers need statistics relating to our three broad areas of responsibility: price stability; economic activity; and financial stability. In the case of our primary goal, price stability, there is a need for comprehensive data, which most countries have. There remains a question about the optimal frequency of collecting and publishing price data – a question that is most often addressed when inflation is high, especially during hyperinflations. Here the interaction between data collection and the dynamics of inflation is a serious issue, as the more frequent publication of data makes price level indexation easier and thus affects inflation dynamics.[5] In practice, most countries have decided on monthly price data, though at one time Australia published the CPI only quarterly, and

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3   See Chapter 4 in *The IMF's Data Dissemination Initiative After 10 Years*, *op cit.*
4   See http://www.ecb.europa.eu/pub/pdf/other/ecbstatisticsqualityframework200804en.pdf.
5   In analysing this issue, it is necessary to note that, in practice, during hyperinflations prices are generally indexed to the exchange rate, so the issue is not the frequency of indexation, but rather differences between the dynamics of an economy with indexation to both the price level and the exchange rate, and that of one with indexation just to the exchange rate.

daily price level indices were available in Brazil. As long as inflation remains relatively low, the monthly frequency seems adequate.

Our second goal, that of supporting economic activity provided that doing so does not conflict with the goal of price stability, leads to a serious question over the timeliness of data on real activity. Data on real GDP are generally three months out of date on the day they are first received, and six months out of date the day before the next data point is published. This is a serious problem for policy-making. Other data on real activity, for example industrial production and the unemployment rate, are available more frequently and with a shorter lag, but each has its limitations. Thus, central bankers and analysts need to spend a great deal of time and effort trying to figure out where the economy is right now. The apparently obvious answer of publishing real GDP data more frequently, for example monthly, runs into the limitation that GDP data revisions are typically so large that monthly data would be too noisy to be of practical use.

Our third goal, that of supporting financial stability, requires the collection of enormous amounts of data. There is a great deal of work to be done on this topic, to enable us to improve our focus in appraising financial stability.

We need data to know where we are and we need data to know where we are going. But, for central bankers, as for all policy-makers, the most important questions we have to answer are counterfactuals: what would happen if, for example, we do or do not raise the interest rate this month. Thus, we are in the business of conditional forecasting, and a critical concern is what data we need we need for model-building.

Everyone who is involved with statistics must occasionally confront the attitude that statistical work lacks the glamour of, say – and here I am of course completely objective – monetary economics. That attitude is unfair, and so let me conclude as I started, with a quotation, this time from George Bernard Shaw, who said "It is the mark of a truly intelligent person to be moved by statistics".

Thank you.

3 FUTURE COORDINATION AND COLLABORATION STRATEGIES IN THE AREA OF STATISTICS

INTRODUCTORY REMARKS

HERVÉ CARRÉ

It is a pleasure for me to discuss with you an issue that has been at the heart of my professional life over the last two years. I am particularly pleased to do so, because I am soon retiring and retirees are, in my view and contrary to conventional wisdom, quite well placed to talk about the future.

Realistic ideas about the future need awareness of the past. In order to know where to go, you have to know from where you came. It can be brought nicely to the point in German: "*Zukunft braucht Herkunft*". People about to retire usually have both awareness and ideas.

In order to introduce our joint sessions, let me set the stage with some observations basically shaped by awareness of the past and a little bit of distance from what is happening on a daily basis.

First observation: the conditions for cooperation and collaboration among official statisticians are structurally quite difficult.

Firstly, more than 31 NSIs of the ESS have to be brought together by Eurostat within the *general EU political framework*. In doing so they have to reach out to their OECD and UN partners.

With their focus on monetary and financial statistics, the 27 NCBs of the ESCB have to work together within *the specific ESCB framework* under the guidance of the ECB DG Statistics. They also have to reach out to their OECD and, above all, IMF partners.

Similar structures exist in other specific domains, with other institutions, agencies or bodies at the national and international levels coming into play. This is the case for environment statistics, energy statistics, tourism statistics and many more domains.

As official statisticians have to cover all domains, more or less, there is some overlap, considerable interdependence and a lot of multi-level interaction. The situation is thus fairly convoluted and complex. Consequently, official statisticians relate with each other in different contexts and compositions (with context specific and, thus, often different priorities), but in so doing they deal often with the same issues, or at least with different aspects of the same issue. This makes cooperation and collaboration quite difficult.

Second observation: it should not come as a surprise that in this complex situation official statisticians are struggling with several problems.

Owing to the many constraints and obstacles, it is quite difficult to assure leadership.

The many bodies involved make it quite difficult to run official statistics efficiently, be it in terms of cost and time, speed or duration.

Thus, successful cooperation and collaboration does to come naturally, however necessary it might be. If everybody cooperates (wants to or has to cooperate) with everybody else, there is a risk that the cooperation or collaboration will never get anything done in a sufficiently efficient manner.

First conclusion: a (politically and operationally) adequate structure is therefore required, and responsibilities have to be attributed as clearly as possible. Such a structure has to be compatible with the overall structures in which the bodies involved are embedded.

For the statistics relevant to the ECB, we have put in place the CMFB and agreed upon a Memorandum of Understanding. This structure has served us quite well, but we have to re-think it now in view of the fact that the overall structure for official statistics in the European Union is about to change.

Second conclusion: even if adequate structures have been put in place, nothing gets done without a strong commitment, and commitment can only be obtained through an open debate, where everybody's voice is heard.

My impression is that we have intensified our debate in recent years. This biennial Conference contributes to it and so does our annual Eurostat Conference or our annual DGINS, but also our regular European Conference on quality in official statistics.

All in all, we have done a lot in recent years to improve the conditions for cooperation and collaboration. I see lots of good ideas being taken up and giving rise to promising initiatives. You can imagine that I am quite optimistic about the future of our cooperation and collaboration and I am eager to know if my view is confirmed by the speakers.

First, **Walter Radermacher** will speak about the role of networks and competence centres in the development, production and dissemination of statistics. He has, of course, the collaboration among NSIs in his focus.

Thereafter, **João Cadete de Matos** will deal with future avenues for cooperation and collaboration between national central banks and national statistical institutes. We are aware of the importance of the NCB-NSI relation, because their collaboration sets the tone and these tones, 27 by now, determine very much the tune of the whole undertaking.

Finally, **Heli Jeskanen-Sundström** is best placed, as one of the longest serving Director Generals of an NSI and as co-chair of our Task Force on Statistical Challenges, to start our exchange of views and ideas as discussant.

THE ROLE OF NETWORKS AND COMPETENCE CENTRES IN THE DEVELOPMENT, PRODUCTION AND DISSEMINATION OF STATISTICS

WALTER RADERMACHER

1   PROLOGUE

Thank you very much, Mr Keuning, for your invitation to this Conference about work-sharing models within the European Statistical System (ESS) – a Conference which I think is very foresighted (and appropriate) both institutionally and in terms of time. Looking around the audience, I am aware that there are high-level representatives of central banks and colleague statisticians, and I am happy to present here some brief explanations on setting up competence centres (ESSnet) in Europe and on the German "Master Plan" model. We hope that both models will lead to more efficient work-sharing – at the European and national levels – to meet the growing challenges for statistics in an even better and, above all, more cost-efficient way. A major characteristic of smoothly working networks is effective communication, and this is where the communication between the European Statistical System and the System of European Central Banks of course plays an outstanding role.

I am going to start my speech by dealing briefly with the reflections, ideas, prospects and first steps which have emerged in the European Statistical System as a reaction to the growing challenges in a globalised world. The main goal here is to meet the increasing demand for high-quality and relevant statistical information in a cost-efficient (resources) and low-burden (reduction of bureaucracy, burden on businesses) manner. This is why I will present a concrete tool which has been developed for that purpose and which has produced initial positive results: The "European Centres and Networks of Excellence".

Then I will analyse the work-sharing model at the national level and give the example of Germany to show how we have reacted to those challenges in our federal system. Here, again, I will concentrate on a few actions that have been taken.

2   THE EUROPEAN MODEL OF CO-OPERATION (CENEX, ESSnet)

DEFINITION AND MOTIVATION TO DEVELOP AN "ESSNET MODEL"

"The European Statistical System (ESS) must reorient itself." This could be the headline for all other activities of statistics. The ESS must adjust to the changing, and generally rising demand for short-term and structural data that is accompanied by a tightening of resources.

Following the motto "together we are stronger", we have taken that course of action within the ESS and will continue to do so. In other words: committing

ourselves to finding both new ways of cooperation and closer cooperation between the national statistical institutes and Eurostat, using available synergies, and trying to avoid duplication of work.

The European Conference of the Directors General of National Statistical Institutes (DGINS) is held once a year by the heads of the national statistical institutes and of Eurostat to discuss strategic issues. At the 2002 meeting in Palermo, the participants saw the need and expressed the intention to intensify cooperation in the field of statistics within Europe. The concrete idea that emerged there was to set up so-called centres of competence. Such a centre of competence is a model of work-sharing within the ESS, following the motto "make or buy". A small group of working-level experts from several member states work together on a project whose results will benefit the whole system. The results will then be distributed in all member states and, in the optimum case, they will be implemented by training. That system of work-sharing has also been introduced within the German statistical system, with its 14 statistical offices of the Länder in the area of data processing. But, as I mentioned before, I will come back to the German model later. So, for a start, let us stay in Europe with its centres of competence.

DEVELOPMENT AND IMPLEMENTATION OF THE "ESSNET" MODEL

In 2004/2005, a special set up task force developed a comprehensive concept for a model called "CENEX (Centres and Networks of Excellence)", which was then adopted by the Statistical Programme Committee.

Currently there are the following CENEX:

–   CENEX on statistical disclosure control (SDC: created in January 2006, since January 2008 the project has already been in its second work phase). The project has been very positively evaluated by Eurostat;

–   Hedonic prices (since 2006; German responsibility); and

–   CENEX on methodology (ISAD: Integration of survey and administrative data)

Based on the initial good experience acquired with the current projects, the ESS has further developed the CENEX model to meet future requirements.

In February 2007 Eurostat presented to the Statistical Programme Committee its new concept of so-called ESSNet (re-naming CENEX ESSNet), whose starting point will be the conceptual work already done for CENEX.

Among other things, seven new criteria have been introduced which will have to be met by the ESSnet projects and which illustrate the underlying goals. These goals are the following:

– Giving the results to all member states even though several partners are involved

– Dealing with issues of interest to Europe

– Compatibility with the five-year programme

– Cost-effectiveness (for example, projects are excluded if there is insufficient financial coverage or if there is a risk of duplication of work)

– Common utilisation of special knowledge, innovation, and harmonisation

– Sustainability of the project

– Actions can be carried out only by the ESS

ESSnet projects are meant to examine methodological aspects, so that new tools, guidelines and standards can then be established. We can also pursue activities to improve data quality and test new methods of data collection or data production, if they involve a considerable amount of methodological or development work. ESSnet is not suitable for actual production because the financial grant policy does not allow regular support of continuous production processes. This is where the European model of work-sharing differs from the German model, which already centralises some production elements (e.g. price statistics in Hessen (Hesse) and tax statistics in Rheinland-Pfalz (Rhineland-Palatinate)).

Now we are just about to implement the latest ESSnet concept. It will be presented at the SPC meeting in May 2008, and then discussions will focus on what areas would be suited for future ESSnet projects.

Two types of ESSnet models are distinguished:

– ESSnet project oriented: the goal is clearly defined; the project is included in the relevant annual programme and has a term of just one to two years. This type of project is currently financed through grant agreements.

– ESSnet objective oriented: generally for a term of four years. Partnership framework agreements are concluded here.

The multi-annual statistical programme dedicates an entire section to that flexible form of co-operation and demands above all that a new reasonable form of financing is found. The current way of funding is based on the hypothesis that the money is provided in the form of grants as defined in the European Financial Regulation. If, however, a small group of institutes in the ESSnet provides

services that actually benefit all ESS members, those services must be fairly compensated. This is the only way to ensure that volunteers can be found who are willing to provide intermediate input and make investments, which in fact are preconditions for improved efficiency. Parallel to the conceptual development of a smoothly working model of ESSnet projects, the issue of financing is also being pushed in high-level working groups. The goal here is to create new and adequate alternatives that are better suited than the current one to accompany the cooperative system structure to be set up.

PROSPECTS OF THE "ESSNET"

Today, the ESS is unimaginable without optimised cooperation – first of all, for reasons of economic efficiency. Second, cooperation across countries creates a new culture of trust, which will ultimately benefit the quality of the statistical products. Without anticipating the coming SPC meeting, I can personally imagine some areas in which ESSnet projects might be implemented. One example is the implementation of SDMX, which – as you know – deals with the exchange of data and metadata. Another is the development and joint use of IT tools.

HARMONISATION AND STANDARDISATION

The specific characteristic of the ESS is that the statistical information produced (and communicated) should be comparable across all member states. That goal is the driving force behind all the efforts, projects and successes of the last few years. Without casting any doubt on that goal, I would like to point out some risks. I am especially worried by a trend that has emerged over the last few years and manifests itself in legal regulations: statistical regulations are increasing in number, they are becoming more detailed, and they are aiming more and more often at the processes or inputs of statistics. Of course (apart from the very purpose), there are simple explanations for this trend, such as the provision of resources in the member states, which is made dependent on it. Nevertheless, I raise a warning finger. An overdose of regulation would damage the ESS. It would make statistics inflexible and slow. It would turn a scientific-methodological tool for observing socio-economic phenomena into a huge administrative apparatus that would definitely no longer be able to meet the requirements of a dynamic knowledge society.

So, what would I recommend instead?

Moderation in adopting legal provisions (where possible, only framework regulations and output harmonisation)

Quality assurance through standards, best practices, etc.

Joint ICT tools

Joint training for statistics

What I find particularly important, however, is that the goal of harmonisation is not considered separately and taken as absolute. A rule that applies here, too, is that there is no free lunch.

Harmonisation has a price, not only in terms of money but also in terms of flexibility and methodological adequacy. Maybe it is wise to be satisfied with 1% less comparability. As we all know, statistics does not claim to be as exact as a letter balance.

But let me come to the second part of my comments, in which I am going to give a brief report about the experience gained with a work-sharing model in Germany.

3   THE GERMAN COOPERATION MODEL (MASTER PLAN)

As at the European level, national official statistics face one question: How can official statistics be efficient, high-quality, relevant, low-burden, and innovative? What can we do to achieve excellence? National official statistics are more and more influenced by a globalised world and characterised by coordination processes at the international level which, in turn, are incorporated into European laws. This results into ever-new tasks. At the same time, there are trends towards stricter conditions to getting resources and towards more demanding political expectations regarding the reduction of administrative burdens. Those trends produce considerable pressure for action: In simplified terms, official statistics must continue its programme, maintain the quality of its products and services and, at the same time, become more efficient and less of a burden.

In this context, the "Master Plan" of the statistical offices of the German Federation and Länder is an important first step. It is a catalogue of measures or an action plan, and thus a tool to achieve a reform, rather than the reform itself. The actions mentioned in that plan are meant to improve the efficiency of official statistics. The Master Plan has given enormous impetus to the modernisation of the statistical offices – impetus to focus more on the statistical processes and their optimisation by regional work-sharing and specialisation (as one of its forms). To say it with Adam Smith, work-sharing should increase the productivity of official statistics.

New methods have been developed and new coordinating bodies have been set up (Committee on Strategy and Marketing, Committee on Organisation and Implementation). And here are the main actions: optimised cooperation in official statistics, centralised IT production and data storage, standardisation of the production process, and a reform of business statistics.

"Centralised IT production and data storage" has so far been the most far-reaching form of cooperation. Although each Land office itself collects individual data (including from registers) and controls subject-related activities (such as statistical data editing), the IT infrastructure for data processing and data storage is operated by one office for all offices together. Thus, a first basis has

been created for the statistical offices to concentrate more on the sub-processes of "presentation and analysis", as well as on the dissemination of results and communication.

Having understood that individual solutions for individual statistics are too expensive, we have defined a goal of developing standardised procedures across the various statistics. The SteP approach means that standard tools (especially IT methods) are provided for work steps that are similar in many statistics. Since May 2003 the SteP working group set up for that purpose has defined 14 actions (Steps), ranging from questionnaire design to address processing. The vision is a cross-statistics database architecture: input databases contain raw data that have been received in various ways. All those raw data are checked for arrival, coded and edited by standardised methods, before they are processed – again applying standard methods (such as Statspez or SAS) – and stored in an output database. The output database can provide data for almost any dissemination product. That data warehouse architecture is complemented by a common infrastructure in the form of registers and meta-databases. The 2011 population census will be the first large-scale statistics based on that principle.

In addition to the technology, I think we must also include the people and the structures. This process of change opens up new opportunities of shaping. In this context, one thing seems important to me: The whole thing is not only about "ourselves" as the producers, but first of all about our users. It is crucial that every statistical office can provide its government and its citizens with what they expect: evaluation, analysis and information in a modern way, involving rapid access, transparency and interactive communication.

After a good four years, in summer 2007, the statistical offices evaluated the Master Plan for a Reform of Official Statistics. Here is the summarising conclusion: Official statistics has benefited from the Master Plan. It has become more modern. The standardisation of statistics production and dissemination produces improved efficiency and saving potential. "Good" reform concepts are already available; the weak point at the moment is rapid implementation, because resources are lacking or are not sufficiently available for the modernisation process. In other words: official statistics can become even more modern if it actively continues on its current path. The general recommendations are the following:

Accelerating the implementation of the Master Plan and its rather complex projects will be possible only if larger resources are used as investments.

For the implementation of new tools and process standards, more training must be carried out.

The changes in statistics production are most obvious in the shift from primary to secondary statistical surveys. Especially, the discussion on resources and the necessity to reduce the burden placed on respondents by reporting duties lead

to an increased utilisation of administrative data for statistical purposes and to the establishment of registers all over the world.

A key to success is the rapid implementation and acceleration of process standardisation, especially in the context of reforming business statistics. We intend:

– to combine our forces more strongly to be able to carry through several projects at the same time (analogous to: census metadata),

– to use administrative data to a much larger extent than in the past,

– to implement technical, staff, and organisational measures in a coordinated procedure.

4   THE INFORMATION AND KNOWLEDGE SOCIETY

In my opinion, the transition to a society based on information and knowledge poses a major challenge to statistics. What I have in mind is not so much our statistical results and their adjustment (e.g. integration of R&D) – it is rather the processes of statistics production. What does the "info society" look like as I imagine it?

Let me point out two elements that are important for statistics:

the quantity of "well-arranged" data stocks in the administration, and the behaviour of coming generations as regards information research and processing.

Phenomenon A will turn statistics that previously focused on the collection of data into statistics that uses existing information, while adding to it, and mixing it with (primary) surveys in a suitable way. "Business Intelligence" is the term that would be used in business management.

Phenomenon B poses new challenges to the communication of statistical information. The "Playstation generation" does not want to buy a statistical yearbook; what it wants is 24/7 availability, interactivity, transparency, etc. If statistics is to contribute to opinion-making in democratic societies, this will pose considerable challenges to the permanent modernisation of communication. But this is not all. I think that the participation of the civil society in the phases of planning, preparing, and designing statistical information is a demand which – although it is not new – will increase in importance. This is where we come back to the beginning of our arguments: Those who are well informed (by statistics) wish to participate in selecting and shaping such information.

5   EPILOGUE

So, let me come to the end now and draw some conclusions. I think we have taken the right path in saying – perhaps exaggerating somewhat – that isolated parallel work is a thing of the past and that joint work is the future. To judge by the experience in Germany, with work-sharing following the motto "make or buy", I am sure that the path also being taken now in the ESS is the right one and will make our co-operation much more efficient in the medium or long term. Of course, the challenges we have to face together in the ESS will not be reduced by these actions alone. However, together they are easier to meet. In any case, we should not do what the Roman philosopher, playwright and statesman Lucius Annaeus Seneca once said: "It is not because things are difficult that we do not dare; it is because we do not dare that they are difficult."

Thank you very much for your attention.

CENTRAL BANKS AND STATISTICAL OFFICES: AVENUES FOR FURTHER COOPERATION[1]

MANUEL SEBASTIÃO AND JOÃO CADETE DE MATOS

EXECUTIVE SUMMARY

Statistics are a public good. Compiling and disseminating top-quality statistics requires efficient production and dissemination processes that are in line with international standards and in compliance with commitments to national and international organisations. For this, institutional cooperation at both the domestic and international levels is instrumental.

At the domestic level, we need a good National Statistical System (NSS) in which the national statistical office and the national central bank play a pivotal role. The design of such a system should provide (a) a clear division of responsibilities and work between the participating institutions; (b) a framework for adopting common methodologies, concepts and nomenclatures and sharing lists of statistical units and administrative data; and (c) a representative institutional setup where producers and users of official statistics interact productively.

At the international level, central banks and statistical offices involved in the global network of institutional statistics cooperation need to cover the whole statistical spectrum, fully and efficiently, with a common statistical language worldwide, and without overlapping other remits. In so doing, they need to be more proactive and more forward-looking in order to identify the likely changes; to understand the economics of the events and transactions to be measured; to promote mutually beneficial relationships with data providers and the relevant users; to boost the technical expertise of their staff; to develop communications skills and strategy; and to ensure that statistics are delivered in a way that allows data to be converted into knowledge.

The recent turmoil in financial markets and the challenges posed by globalisation and the vulnerability of economies to cross-border financial risks show that there is a need to fully and timely capture such an evolving reality with relevant statistics produced and disseminated on a regular basis. In this context, further enhanced international cooperation among statistics compilers is warranted, particularly in terms of the exchange of information for statistical purposes. There is also a need to strike a better balance between reducing the reporting burden and requiring raw data, rather than relying on survey data, for compiling top-quality statistics. Institutional cooperation, especially at the international level, is also instrumental in this matter.

In this paper, we start by offering a few possible justifications for having sound institutional cooperation in the area of macroeconomic statistics. We continue by highlighting types of institutional cooperation between central banks and

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statistical offices that are currently in use. The Banco de Portugal's experience is then introduced to illustrate various dimensions of interagency cooperation. We conclude by putting forward a number of suggestions aimed at further strengthening institutional cooperation in statistics.

I   WORKING TOGETHER WORKS – DIMENSIONS OF INSTITUTIONAL COOPERATION

"Coming together is a beginning. Keeping together is progress. Working together is success."

– Henry Ford, American industrialist, 1863-1947

Statistics are a public good. Hence, they must be produced efficiently to maximise user satisfaction at minimum overall social costs. To reach this fundamental goal, statistical agencies[2] should work together, in synergy, rather than conducting their activities in isolation – while preserving in all respects each agency's independence. In essence, this is in line with the policy advocated in the Fundamental Principles of Official Statistics adopted by the Conference of European Statisticians in 1992 and endorsed by the United Nations Statistical Commission in 1994 (after a few minor amendments to the preamble).

REASONS FOR INSTITUTIONAL COOPERATION

There is ample motivation for actively fostering inter-agency cooperation at both the national and international levels. To begin with, this allows for an effective clarification of the responsibilities committed to each of the agencies involved in producing and disseminating statistical data. It also helps to improve data coherence with regard to terminology, classifications, definitions and other metadata, hence facilitating the integration of data produced from different sources. In addition, it promotes steady efficiency gains in the statistical system by reducing possible duplication of reporting efforts, contributing to a better resource allocation, minimising respondents' reporting burden and avoiding data redundancy. Typically, effective institutional cooperation promotes the exchange of data and experience among statistical agencies, with mutual benefits: that is the case, for instance, when national statistical institutes (NSIs) provide specialised data to national central banks (NCBs) for policy purposes or when NCBs help NSIs to develop particular statistical capacities.

Ensuring effectual cooperation between NCBs, as producers of statistics, and other statistical authorities – first and foremost NSIs – is instrumental to the quality, relevancy and cost-effectiveness of macroeconomic statistics. Clearly, this goal can be pursued through different institutional settings; still, regardless of the particular form of interagency cooperation chosen, it is vital that such organisational arrangement remains focused upon optimising the efficiency of the statistical production process.

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2   Throughout the paper, statistical agencies are meant to include, on one hand, national central banks (including, e.g. the European Central Bank) and, on the other hand, national statistical institutes (including, e.g. the Eurostat). Concurrently, institutional cooperation only covers the field of macroeconomic statistics, given the specific nature of national central banks' mission.

MODALITIES OF INTER-AGENCY COOPERATION

Cooperation between NSIs and NCBs in the field of macroeconomic statistics can take many forms, essentially to accommodate different possible purposes the data may serve:

– Shared responsibilities for the national statistical programme

This institutional arrangement – particularly when the NCB is formally represented in the steering committee (or similar superstructure) responsible for the statistical programme – creates the conditions for an appropriately coordinated and efficient national statistical working plan, including a more efficient allocation of tasks for the execution of statistical operations. This enhances the operational effectiveness of the statistical system and makes it more capable of responding to existing and foreseeable future official statistical data needs.

– Cooperation agreements or memorandums of understanding (MoU)

An institutional agreement such as this typically sets out the division of responsibilities between two or more statistical agencies and formulates best practices. It is particularly useful when both the NCB and the NSO are involved in the compilation of the same type of statistics, which is often the case (e.g. national accounts or balance of payments statistics). The MoU contributes to a higher degree of integration and coordination in the statistical system and creates the conditions for increasing the quality of official statistics, while alleviating the respondents' reporting burden, preventing data redundancy and using available resources more efficiently.

– Service contracts

This is the case whereby one statistical agency provides services to another (a particular survey or the compilation of specialised data) against payment. This type of institutional cooperation may be a mutually beneficial arrangement in those cases where the activities of the statistical agency that provides the service are to some extent restricted by budget constraints and, at the same time, the price that the acquiring party is willing to pay for that service is inferior to the costs of developing that very product internally.

– Cooperative data collection

Statistical agencies may explore ways to work together with a view to letting one collection system satisfy the current information needs of them all. This includes the adoption of common methodologies (e.g. seasonal adjustment techniques), concepts and nomenclatures, further contributing to an effective coordination of the statistical agencies' initiatives. This sort of cooperative effort may help statistical agencies to identify ways to improve their individual data systems so that they are more useful for a wide range of purposes, thus enhancing data relevancy and strengthening the statistical system as a whole.

– Exchange of information and practice

Initiatives for sharing data – possibly including microdata (both data and registers), when permitted by law and on the condition that data confidentiality is accounted for – and experience among statistical agencies can help improve statistical estimates, reduce costs, eliminate data redundancy and avoid overburdening respondents, thus contributing to the continuous betterment of official statistics' intrinsic quality and making their production more efficient.

– Technical assistance and common training initiatives

Statistical agencies often provide technical assistance to other agencies (and receive assistance in turn), thus learning from and contributing to the work of other statistical agencies within the country or in other countries in such areas as, e.g. definitions, concepts, measurement methods, analytical tools, dissemination modes, etc. Technical assistance comprises, e.g. sharing best practices, seconding staff and bilateral working visits, and organising and participating in specialised seminars and workshops.

– International comparability of statistics

NSIs and NCBs are also concerned with international comparability of statistics. They contribute to the joint development of international standard classifications and systems, as well as to the activities of the various international organisations that have a vested interest in statistics, such as the International Monetary Fund, the United Nations Statistical Commission, and the Organisation for Economic Co-operation and Development, just to name a few.

2   INSTITUTIONAL COOPERATION IN PRACTICE – PORTUGUESE EXPERIENCE

 "We can't solve problems by using the same kind of thinking we used when we created them."
> – Albert Einstein, the Nobel Prize in Physics 1921, 1879-1955

Competent authorities have recognised that robust working agreements among all the national statistical agencies, in general, and between NSIs and NCBs, in particular is important for the efficiency of the statistical system, leading many countries to evolve from informal to more formal arrangements. This is the case in Portugal, where there is close cooperation between the *Banco de Portugal* and other official entities – especially *Statistics Portugal*, the Portuguese NSI.

A new law introducing significant changes to the current legal framework of the National Statistical System (NSS) will soon enter into force in Portugal. Under this new regime, the role of the Portuguese central bank in the statistical field will be reinforced: the *Banco de Portugal* will be recognised as a statistical authority and formally incorporated into the NSS structure as well as in the High Statistical Council, a state entity that is responsible for guiding and coordinating the NSS.

The new law fully endorses the Fundamental Principles of Official Statistics adopted by the United Nations Statistical Commission, namely by regulating aspects such as technical independence, quality, access to official statistics and individual data protection. The guidelines contained in the European Statistics Code of Practice have also been adopted and are reflected in the fundamental principles of the NSS. With regard to statistical secrecy, the draft law regulates the circumstances in which access to individual statistical data can be granted for scientific purposes.

Another important feature of the new NSS law concerns the enhanced emphasis given to promoting coordination between statistical authorities, in particular between the *Banco de Portugal* and *Statistics Portugal*. These two institutions are already party to several agreements for the purpose of statistical production. This collaboration takes various forms and the following initiatives in this field are worth mentioning:

– In 1998 the *Banco de Portugal*, the Ministry of Finance and *Statistics Portugal* signed a protocol with the purpose of defining the coordination among these entities in order to fulfil Portugal's commitment to the Special Data Dissemination Standard (SDDS) of the International Monetary Fund. This protocol was very important for defining individual obligations and implement a timetable for this Standard. It has contributed decisively to the positive assessment of Portuguese participation in the SDDS over the past 10 years.

– Also in 1998 a protocol was signed between the *Banco de Portugal* and *Statistics Portugal*, relating to implementation of the European System of Accounts (ESA 95). This protocol, which was updated in 2001, defined their joint responsibility in the compilation of Portuguese national accounts. *Statistics Portugal* is in charge of compiling the non-financial accounts, whereas the *Banco de Portugal* took over responsibility for compiling the financial accounts. On the basis of this protocol, the two have carried out joint work in this field, making a relevant contribution to enhancing the quality of Portuguese national accounts.

– Another protocol was signed in 1999 between *Statistics Portugal* and the *Banco de Portugal*, relating to a joint venture from the year 2000 onwards. This was for a quarterly survey of non-financial corporations, carried out since 1997 by the *Banco de Portugal*. The main purpose of this initiative was to avoid undertaking two similar surveys, thereby reducing the reporting burden for the corporations involved. In 2001, the sample was updated and the questionnaire adjusted in order to ensure better quality information.

– With a view to launching a survey of Household Indebtedness and Wealth, a protocol was signed by the *Banco de Portugal* and *Statistics Portugal*. This survey was carried out for the third time in 2006.

– In the area of balance of payments, two protocols were signed in 2004, one with the General Directorate of Tourism and the other with *Statistics Portugal*.

The aim was to collect additional data in order to compile tourism statistics. These protocols focus on two statistical operations, one being a survey on cross-border movement of travellers and the other a survey on international tourism expenditure. Results for the period 2004-2006 were first released in April 2007. These surveys will provide an additional source for the compilation of the tourism item in the balance of payment statistics.

– At the beginning of 2006 an institutional cooperation agreement in the field of general government statistics was signed between the *Banco de Portugal*, *Statistics Portugal* and the Ministry of Finance, covering the following areas: (a) defining and updating the general government sector entities; (b) compiling the general government accounts (financial and non-financial) on a quarterly and annual basis; (c) compiling public debt statistics; and, (d) closely analysing the Excessive Deficit Procedure report and the corresponding methodological background. For this purpose, a framework of common data sources and procedures has been drawn up by a working group made up of representatives of the institutions.

– Finally, the *Banco de Portugal*, *Statistics Portugal*, the Ministry of Finance and the Ministry of Justice have developed a joint project aiming to define a harmonised solution for the collection of annual data from the financial statements of non-financial corporations. This project is known as IES (*Informação Empresarial Simplificada*), which literally means Corporate Simplified Information. It was formally created by Decree-Law No. 8/2007 of 17 January. IES is the electronic submission of accounting, fiscal and statistical information that companies usually have to provide to the above-mentioned authorities. Through IES, companies can fulfil four obligations to four authorities through one single electronic submission at one moment in time. This initiative integrates a set of measures that have progressively streamlined administrative and legal procedures for companies, reducing the current reporting burden.

Also at a national level, cooperation with the supervisory bodies must be highlighted. By end-January 2008 the *Banco de Portugal* signed a Protocol of Cooperation with the Portuguese Securities Market Commission – an independent public institution in charge of supervising and regulating securities and other financial instruments markets, as well as the activity of all the entities that operate within these markets. In accordance with said Protocol, both institutions agree to exchange detailed information on securities issues (including, e.g. data on securitisations) and financial intermediaries. The *Banco de Portugal* also has an informal agreement with the Portuguese Insurance and Pension Funds Supervisory Authority for the regular provision of data.

At the international level, cooperation within the European Union assumes a major role. The *Banco de Portugal* is part of the European System of Central Banks and, as such, has been permanently and deeply involved in building a harmonised European statistical framework, not only directly with the European Central Bank (ECB) and the other NCBs, but also with the Statistical Office of the European Communities (Eurostat) and the NSIs, under the umbrella of

the Memorandum of Understanding on economic and financial statistics agreed between the ECB's Directorate General for Statistics and Eurostat. In this way, it is possible for the ECB and Eurostat to apply the same statistical framework to the whole European Union while taking the national contributions into account. The joint coordination work through the Committee on Monetary, Financial and Balance of Payments Statistics has also been vital to good cooperation among statisticians in NCBs, NSIs, the ECB and Eurostat, fostering the interchange of statistical knowledge among these entities, and contributing decisively to the development of an European statistical system.

The *Banco de Portugal* also works in close cooperation with other international institutions, in particular the International Monetary Fund, the World Bank, the Bank for International Settlements and the Organisation for Economic Cooperation and Development. This coordination includes both data reporting and discussion of concepts and methodologies.

Finally, another area of institutional cooperation in which the *Banco de Portugal* has been especially active is technical assistance, particularly (but not exclusively) with the NCBs and NSIs of the Portuguese-speaking countries. This comprises, e.g., bilateral working visits,[3] the organisation of and/or participation in seminars and workshops, and the sharing of good practices – as in the cases of the *Biennial Meetings on Statistics* of the Portuguese-speaking NCBs and the *Cooperation and Technical Assistance Agreement in the Field of Statistics* that was recently signed by the *Banco de Portugal* and the NCB and the NSI of Brazil.

3   MEETING THE CHALLENGES AHEAD – THE FUTURE IS NOW

"I find the great thing in this world is not so much where we stand, as in what direction we are moving – we must sail sometimes with the wind and sometimes against it, but we must sail, and not drift, nor lie at anchor."
                                    – Oliver Wendell Holmes, American writer, 1809-1894

The increased importance of economic globalisation, rapid financial innovation and the related ever-growing complexity and diversification of statistical data needs, together with the emergence of the Information Society, are some of the driving forces behind the increasing pressure on statistical systems.

The subprime mortgage crisis of last year, in conjunction with the ensuing turmoil in the international financial markets, drew attention to economies' increased vulnerability to risks, particularly credit risk, caused by the deepening of financial globalisation. This is a case where the lack of sufficient data on credit risk concentrations hindered a proper assessment of the turmoil's policy implications and prevented a timely response by policy-makers. Indeed, the

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3   Since its creation, in 1997, the Statistics Department of the *Banco de Portugal* has been visited by 36 delegations from foreign central banks and statistical offices and from international organisations with vested interests in statistics.

extent and nature of the financial interdependencies have not (yet) been fully captured by the set of financial statistics currently produced.

In the context of European statistics, the problems posed by the enlargement of the European Union and the new requirements for statistics as a result of the European integration process add extra complexity to an already complex situation.

One method of effectively dealing with those issues consists in further deepening the extent of institutional cooperation, at both the national and international levels,[4] by exploring all possibilities left open and thus creating the objective conditions to meet the challenges of the future.

ANTICIPATING USERS' DATA NEEDS

This process seems to be both natural and unavoidable. Nonetheless, to cope with the mounting intricacies of current economic life, such an approach needs to be complemented by a much-needed reorientation of official statistics, with respect to both focus and role.

Not so long ago, official statistics were essentially centred on quantifying relatively well-known and stable key economic phenomena. However, the urgent needs of contemporary economic life tell us that this stance may no longer be enough. In fact, the financial developments cited above are just a sign of other – possibly even more serious – predicaments looming ahead.

More and more, data users – and, a *fortiori*, statisticians – have but a partial knowledge of the reality they attempt to describe. Developments in the economic and financial realms have grown in complexity and become more dynamic and less predictable. Against this background, statistical agencies cannot afford to remain forever static; they have to assume a more proactive stance.

To provide information of continued relevance for users, statistical agencies should continually try to anticipate data needs for future policy considerations

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4   A good illustration of the potential of institutional cooperation for helping to solve specific statistical issues is the ongoing development by the ECB, with the dynamic participation of the NCBs of European Union Member States, of a reference securities database with complete, consistent, validated and updated information on all securities relevant to the statistical objectives of the European System of Central Banks – on a security-by-security basis – the so-called Centralised Securities Data Base (CSDB). Once completed, the CSDB will serve two purposes: supplying information for the compilation of euro area aggregates, such as securities issues statistics; and supplying reference information on securities and issuers, so as to cope with the collection of statistical information on a security-by-security basis and enable the production of improved aggregate statistics.
The *Banco de Portugal* has been actively collaborating on this project since its inception. Information on Portuguese securities, extracted from the *Banco de Portugal*'s security-by-security database (also known as SIET), is being sent to the ECB on a monthly basis. SIET, being an integrated system that includes data on issues and portfolios and covers all the economy's institutional sectors, makes it possible to cope efficiently with most information requirements in the field of securities statistics.

and look for ways to develop data systems that can serve broader purposes. Therefore, in addition to quantification, they will have to identify, as early as possible, the likely changes and the true underlying economics of the events and transactions which have to be measured. For that purpose, it is critical, on one hand, to promote mutually rewarding interrelationships at both the national and international levels between statistical agencies and the relevant (i.e. institutional) users – particularly policy-makers – and, on the other hand, to widen the communication channels with the business and research communities and to explore further the possibilities offered by commercial data providers.

GETTING PREPARED

To be able to do so effectively, a statistical agency should resolutely increase the technical skills and the conceptual and analytical capabilities of its staff. In-house analysis has the potential to lead to instant improvements in the quality of the statistical output, facilitate the identification of emerging data needs and provide better understanding of the data users' perspectives. For this purpose the statistical agency must be in a position to attract and maintain highly qualified human resources.

In addition, statistical agencies should keep pace with the developments in information and communication technologies – which, in turn, implies that statisticians may have to undergo training and education in this specific area to become digitally literate – and be prepared to implement new procedures in a suitable manner, to continually improve the quality and timeliness of their information, promoting a swift disclosure of statistics – reducing the "time-to-market" of statistical outputs (by means of, e.g., flash estimates) – and thus increasing the efficiency of their operations and the relevancy of the disclosed data.

DEFINING A COMMUNICATIONS STRATEGY

Along the lines of the Fundamental Principles,[5] official statistics should be relevant for the society as a whole (thus not just governance-driven), compiled impartially (hence objective and free from political interference) and accessible for everyone under equal conditions. However, in many instances, official statistics fail to comply in full with this design due to, among other factors, poor communications strategies. Therefore, to be able to convey official statistics in a form that can be easily understood and readily used, statistical agencies should consider adopting a more outward-looking culture, by defining a communications strategy capable of matching the new exigencies brought about by the Information Society, in particular statistics users' heightened expectations as to

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5   "*Official statistics provide an indispensable element in the information system of a democratic society, serving the government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information.*" – Fundamental Principle No. 1.

the way official statistics should be divulged now that broadband internet by the public at large is widespread. Users now expect to be able to access information on websites that are all-together friendly, attractive and easy to understand and utilise. In the last few years there has been a growth in websites[6] that take freely-available information – both from official and non-official sources – integrate these data, and analyse and present them in a manner that seems to be pleasing to the general public. Rather than competing with these data providers, statistical agencies should consider learning from their experience and eventually doing business with them.

Indeed, with the emergence of the Information Society and concomitant advancements in electronics and communications, people are demanding and using more and more statistical information. In line with these developments, statistical agencies seem to be increasingly aware of the multiple purposes that official statistics should serve, with consequences for the way these data are processed and disseminated. Statistical press releases (joint, where applicable) and online statistical databases (tailor-made, interactive and up-to-date)[7] are examples of dissemination methods and procedures that statistical agencies have been implementing with a view to facilitating the general public's use and understanding of official statistics. This trend has to be continued and possibly reinforced. The ability to communicate is essential for the statistical agency to fulfil its mission.

In this context, consideration also needs to be given to enhancing the statistical literacy of the public at large, to prevent the risk of misinterpretation of the data being released. Rather than just contributing to the already considerable overflow of information, statistical agencies should consider converting information into knowledge, by adding an extra dimension to data disclosure – i.e. data analysis – to lead the users into the right direction.

Finally, because communication is not a one-way process, statistical agencies should be prepared to make adjustments based on the data users' feedback.

To summarise: in order to be better prepared to successfully meet the challenges ahead, statistical agencies should consider being more proactive and more outward-looking, which implies

– further deepening the degree of institutional cooperation – at both the national and international levels;

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6   Vd. *Gapminder*, *Swivel* and *Many Eyes*, to name a few.
7   Since January 2006 the public at large has been able to access relevant statistical information about the Portuguese economy through the so-called *BP stat – Estatísticas online*, an online internet access to the *Banco de Portugal* Statistical Interactive Database. The main purpose of this web-based information service is to make available an easy and quick access to the statistics compiled by *Banco de Portugal*, as well as to the statistics and economic indicators compiled by other institutions. This service offers several facilities and options allowing a user-friendly navigation through the statistical information.

−   attempting to identify, as early as possible, likely changes and the true underlying economics of the events and transactions which have to be measured;

−   promoting mutually beneficial interrelationships with the relevant users (and with the data providers as well);

−   increasing the technical skills (including training and education in information and communication technologies) and the conceptual and analytical capabilities of its staff;

−   defining a communications strategy that is capable of matching users' expectations regarding the way data are delivered, and of converting data into knowledge.

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DISCUSSANT'S REMARKS

THE FUTURE COLLABORATION OF THE ESS AND THE ESCB

HELI JESKANEN-SUNDSTRÖM

EXECUTIVE SUMMARY

The creation of the Economic and Monetary Union (EMU) led to the huge development phase in European statistics which has continued until the present day. Eurostat and the national statistical institutes (NSIs) have worked in close collaboration with the European Central Bank (ECB) and the national central banks (NCBs) in order to meet the statistical requirements of the EMU. The results have been good, thanks to the successful cooperation of these organisations.

During the past few years the strategic discussions within the European Statistical System (ESS) have led to remarkable improvements of the ESS and its governance. The main objectives have been the increased quality and credibility of European statistics, better governance of the ESS, and a more proactive ESS with an enhanced strategic capacity.

The newly adopted Community Statistical Program 2008-2012 creates the framework for the future development of the ESS and its statistics. The draft ECB medium-term statistical strategy sets the very same general goals for European economic statistics: efficiency, relevance, high-quality, low response burden. These are also discussed by both of the speakers of this session.

The paper of Mr Radermacher describes some new successful cooperative arrangements within the ESS and within the German federal statistical system. The paper of Mr Sebastião and Mr Cadete de Matos offers many interesting examples of the collaboration and coordination between the NSI and the NCB.

The focus of this paper is on the future collaboration of the ESS and the ESCB. I start by looking at the importance of the EMU for the development of European economic statistics and continue with a brief overview of recent developments in ESS governance. The differences and similarities of the ESS and the ESCB have an impact on the collaboration strategies between these two systems. These are discussed in Chapter 3. The last part of this paper is devoted to some strategically important aspects relating to the cooperation of the ESS and the ESCB from the point of view of relevance, efficiency, low response burden and quality of statistics. Finally, I will present some questions to the speakers and to the audience.

1   THE EMU AND STATISTICS

"Nothing is more important for monetary policy than good statistics". This famous statement was made by Mr Lamfalussy, President of the European Monetary Institute, when the Institute introduced its statistical requirements for Stage Three of the EMU. Even though the statement was made nearly 12 years ago, it certainly continues to hold true.

The statistical requirements emphasised the importance of the quality, comparability and release timetables of European statistics, as well as the significance of developing short-term statistics, statistics describing the development of the service industries, labour market statistics, national accounts, monetary and balance of payments statistics, and statistics describing the position of the public sector. The ESS took these statistical challenges seriously. This marked the beginning of an unprecedented period of development in European economic statistics which has continued until the present day. We may, therefore, imitate Mr Lamfalussy and state that nothing has contributed more to the development of European economic statistics than the establishment of the Economic and Monetary Union.

Concurrently with the development of statistics, the co-operation between the ECB and Eurostat and between the NCBs and NSIs has grown closer. Formal agreements on forms of co-operation and division of tasks as well as numerous joint working groups and projects have contributed to a functioning system which has been able to develop the statistics important to the ECB in accordance with the needs of the monetary union. The EMU Action Plan and its realisation in the domain of statistics is a success story of good planning and cooperation.

2   THE EUROPEAN STATISTICAL SYSTEM EVOLVES

When speaking of the ESS I refer to the entity comprised of Eurostat, the NSIs and the other national statistical bodies responsible in each Member State for producing and disseminating European statistics in line with the principles of the European Statistics Code of Practice.

Many changes are taking place in the governance of the ESS. Already in 2005 the SPC approved for itself the European Statistics Code of Practice, which forms the basis of the statistical ethics applied in the ESS. The Code of Practice highlights the professional independence, integrity and accountability of the ESS partners and the credibility and quality of statistics they produce and disseminate. The ESS has also set up a self regulatory system to help ensure the practical realisation of the Code of Practice and to promote the continuous improvement of quality of European statistics.

In March this year the European Parliament and the Council adopted a new Regulation on establishing the European Statistical Advisory Committee. The Committee shall assist the European Parliament, the Council and the Commission in ensuring that user requirements and the costs borne by information providers

and producers are taken into account in coordinating the strategic objectives and priorities of the Community's statistical information policy. The Committee shall comprise 24 members, one of whom shall be appointed by the ECB.

Last month the European Parliament and the Council also adopted a Regulation on establishing the European Statistical Governance Advisory Board. The purpose of the Board shall be to provide an independent overview of the European Statistical System as regards the implementation of the European Statistics Code of Practice.

At present, the European Parliament and the Council are reviewing the Community statistics act, which will in all likelihood also define a new internal governance system for the ESS which might differ from the current one.

3 DIFFERENCES AND SIMILARITIES OF THE ESCB AND THE ESS

The ESS is responsible for the production and dissemination of a wide range of different statistics. These statistics not only serve economic and monetary policy but all the Community information needs and the statistical needs of the European citizens. The ESS is not responsible for any policies, except perhaps for statistical policy. By contrast, the primary objective and task of the ECB and the whole Eurosystem is to maintain price stability within the euro area and to conduct monetary policy in this area. The governance structures of the ESCB statistics and the ESS are totally different.

The main focus of the ECB is on euro area aggregates, while Eurostat is responsible for ensuring the production of Community statistics for EU policy purposes. The national statistical institutes are responsible for the production and publication of statistics in their own countries, as well as their delivery to Eurostat and the ECB.

The Memorandum of Understanding between the ECB and Eurostat currently in force defines the cooperation and division of responsibilities between these institutions. Different variants of division of responsibilities exist between NSIs and NCBs. Some current national examples (Sweden, Norway) indicate that the division of labour between the NCB and the NSI is moving towards assigning responsibility for all macro-economic statistics to the NSI.

From the coordination and cooperation point of view, the similarities of these systems also play an important role. The most significant one may be the necessity of credibility and integrity in both systems. The importance of fulfilling these fundamental requirements is recognised widely in Europe, but some issues may appear different from the global perspective than from the European one. Financial markets are global. Therefore, the collaboration and integrity of Eurostat and the ECB as well as the ESCB and the ESS must be looked at from the global perspective. Here the transparency of the ways and means of collaboration is of utmost importance.

From a strategic point of view it is certainly important to recognise common priorities for future development. The same general goals are highlighted both in the ESS five-year statistical programme and the ECB draft statistics strategy: relevance, quality, efficiency and minimal response burden. This is a good basis on which to continue working together and evaluate concrete areas and appropriate forms of cooperation. The draft ECB strategy puts forth a number of concrete cooperation initiatives which appear to be very relevant also from the perspective of an NSI. I will now briefly discuss some aspects related to the above-mentioned joint goals, which have been discussed also by both of the speakers of this session.

4   SOME STRATEGIC ISSUES RELATED TO THE FUTURE COLLABORATION OF THE ESS AND THE ESCB

RELEVANCE

In early 2008 I familiarised myself with the ECB draft medium-term strategy concerning the development of statistics. According to the draft document, most – but not yet all – of the statistical developments important for the EMU have been implemented, and the targets set have been achieved. The statistics strategy confirms the requirements expressed earlier and continues to emphasise the significance of the speed and reliability of the Principal European Economic Indicators (PEEIs), including short-term business statistics, the harmonised consumer price index and quarterly national accounts, as well as the significance of a coordinated release and revision policy. The strategy also mentions *i.a.* labour market statistics, statistics on the housing market and statistics on productivity as priority areas where more progress is needed. However, the ECB's statistics strategy does not raise any substantial new requirements which have not already been expressed earlier.

The ESS statistics are developed in accordance with the five-year Community Statistical Programme approved by the European Parliament and the Council. Close attention will be paid to the quality and relevance of statistics, the efficiency of the statistical system, strict data protection and the response burden of data suppliers. Development of economic statistics continues to be one of the priorities in the activities of the ESS. The major challenges of the NSIs in the next few years relate to the implementation of the NACE Rev 2 in a coordinated manner across all economic statistics according to the jointly accepted timetable. Preparing for the European System of Accounts (ESA 95) revision will generate much work for experts both at Eurostat and the NSIs.

Both speakers of this session emphasise the importance of acting proactively and the need for greater flexibility in order to increase the ability of the ESS – and also of the ESCB – to keep the produced statistics relevant in the ever-faster changing global world. What could we do in terms of relevance and flexibility?

The increasing insecurity of the global economy and especially the credit crisis spreading out from the US market are interesting phenomena also from a

statistical perspective. The international economic crises of the 1990s revealed the shallow nature of the information and risk analyses used when operating in international capital markets. This led to a re-evaluation of the statistical infrastructure also. The International Monetary Fund (IMF) developed uniform quality norms called Special Data Dissemination Standards and a quality control system suitable for the production of key economic indicators.

When EMU was created, the EU countries adopted the Growth and Stability Pact with a view to predicting and preventing surprises. Its main targets were linked closely to the economic statistics produced by the official statistics system. Moreover, the aim of developing the PEEIs was to create a well-functioning information base of European macro-economic statistics to serve the conduct of European economic and monetary policies.

It is interesting to note that in the current economic situation, with insecurities in the financial market, none of the mechanisms mentioned above have been of much use in predicting economic development.

The US credit crisis originally stemmed from the virtual economy, as a consequence of financial market innovations. Speed rules in today's financial market; only the early bird can catch the worm. Events in the virtual economy cannot be followed up with the help of official statistics which are simply too slow. It appears that a large share of the most relevant information is produced by private economic analysts such as Bloomberg and Merrill Lynch.

It might be interesting to join the forces of bank economists and statistical experts and investigate if some conclusions relevant to the development of statistics could be drawn from the current turbulence in the financial market and if so, what could they be. The importance of developing housing market statistics has already been expressed by the ECB. Perhaps some new statistics relating to the financial risks are also needed, as indicated in the Portuguese paper.

From the strategic point of view good and continuous communication between a statistics producer and its stakeholders is very important for the relevance of statistics. Although ECB and Eurostat management and experts meet regularly, Heads of the Statistical Institutes of the ESS have been outside these discussions. In January this year we had the opportunity to arrange the first high-level stakeholder meeting between the ESS and the ECB. This meeting was very useful and I would suggest making them part of the regular activity. This would improve the whole ESS's ability to deal more proactively with new statistical challenges and strengthen the useful cooperation between the ESS and the ESCB.

EFFICIENCY

Many important projects are in progress and new initiatives have been expressed in order to increase the efficiency of the ESS and its cooperation with the ESCB. The ongoing SDMX project aims to rationalise the data collection of Eurostat and the ECB from the national authorities and also to facilitate data exchange

between these organisations and other international statistical bodies. The common definitions of metadata play a crucial role in this work. Standardisation of statistical concepts, definitions and classifications would certainly help make cooperation more effective.

The harmonisation of the ESS statistics across the member states is mainly regulated with the help of Community legal acts. In his paper Mr Radermacher points out some risks relating to this kind of harmonisation. There are too many regulations, and they are often too detailed and aim at harmonising the input of statistics instead of output. It is easy to agree with him and his recommendations. Even though this issue is more important inside the ESS, it is also – without any doubt – one of the strategic questions relating to the cooperation between the ESS and the ESCB.

There are many good examples of the cooperation and collaboration between NCBs and NSIs which contribute to the efficiency of the national statistical systems. In their paper Mr Sebastião and Mr Cadete de Matos present very interesting experiences from Portugal. The most promising cooperative examples refer to the exchange of information on statistical units. Coverage and quality of national business registers would improve a lot if NSIs and NCBs could share the responsibilities efficiently to update the statistical business register. Similarly, the establishment of the EuroGroup register would increase the quality of statistics produced by both the ESS and the ESCB in the future. However, the benefits of the EuroGroup register shall depend to a great extent on the quality of the updating system of this register. And there I see the greatest risks.

LOW RESPONSE BURDEN

Balancing the need for data and the resources of those who supply the data and those who compile statistics is a fundamental management challenge for any statistical authority. It is challenging to the individual NSI as well as to the whole ESS.

The response burden can be lightened by collecting data only once and ensuring the rights of use for all who need them for statistical purposes. The amendment of the Community statistics act will significantly improve the data exchange possibilities between the ESS and the ESCB while maintaining the current strict data protection.

If realised in its current form, the new Community statistics act will create improved preconditions for developing the quality of European economic statistics, as it will enable the exchange of confidential data between the ESS and the ESCB. In order for this change to be realised, the Articles on statistical confidentiality in the basic statistical legal acts of the ESS and the ESCB will need to be amended.

Actions and processes related to data protection should be dealt with more closely in our cooperation in the future. The more concerned statistical survey

respondents are about the further use of the data they supply, the less willing they are to respond to surveys. Robust data protection, paired with continuing and transparent provision of information on ways of guaranteeing it, promote data suppliers' confidence in statistical authorities, make them more willing to respond, and ultimately also improves the quality of statistics.

For this reason all the guidelines and regulations concerning the transfer, processing and use of confidential statistical data between the ESCB and the ESS must be drafted with care and published efficiently.

QUALITY OF STATISTICS

Quality of statistics depends very much on the quality of raw data; on the quality of processes, systems and operations; and on the quality and competence of people working within the statistical system. Research and methodological work are needed for continuous improvement of statistics quality and the operations of statistical authorities. The ECB conducts a lot of research useful also to the development of the ESS statistics. The Committee on Monetary, Financial and Balance of Payments statistics (CMFB), as a cooperative expert group between the ESS and the ESCB, has also conducted some research work which has helped a great deal in the development of community statistics. The work and opinions of the CMFB are highly respected among the SPC members and elsewhere.

In addition to research on statistical methodology, statistical authorities' analytical research is becoming more and more important. The current research input of ESS partners varies. Research cooperation of the ESCB and the ESS would be important. For various reasons the ESSnet model, as described in the German paper, might not be applicable to the joint projects of the ESS and the ESCB. The question is whether there are any financial arrangements which would be suitable for this kind of cooperation. There are many areas where the shared interest can be recognised and where more research cooperation would be needed, e.g. seasonal adjustment, revisions, flash estimates, globalisation and coherence of European statistics.

Both speakers of this session emphasise the importance of continuous training for statistical authorities' personnel. Currently, European training courses are organised within the ESS in many different statistical domains. But could we do more if we joined forces? After all, the European investment in statistical training is quite modest compared, e.g. to the training activities of the IMF in the area of national accounts and financial statistics. It would help to increase the quality of European economic statistics if the possible institutional and financial barriers regarding joint statistical research and training programmes of the ESS and the ESCB are removed.

5   SOME QUESTIONS

1. What are the biggest challenges relating to the future collaboration of the ESS and the ESCB?

2. As to the close collaboration of the ESS and the ESCB, do you see any risks relating to the independence and integrity of the ESS and the ESCB?

3. As to the demand to be more proactive and more forward-looking, what would be the best means and modes of future cooperation between the ESS and the ESCB?

4. As to the joint targets of relevance, quality, efficiency and low response burden, what would be the best ways to add value of collaboration of the ESS and the ESCB?

5. What are the lessons to be learnt from the experience of cooperation on a national level which would be relevant and realistic to apply on a European level?

DISCUSSION SUMMARY

Hervé Carré observed that the conditions for global cooperation are difficult; 31 statistical institutes must come together in an EU political forum and then collaborate with the UN and OECD. He also observed that inefficiencies could result from such governance structure. He concluded, first of all, that a new political and operational structure with clear responsibilities and good leadership is needed. Adequate governance, as provided by the Committee on Monetary, Financial and Balance of Payments Statistics and the Memorandum of Understanding between Eurostat and the ECB, is also needed. This works, but he went on to add that even with good structures, we need to deliver; for this to happen best practice must continue to flourish and spread. Looking ahead, the present cooperation and collaboration must continue to improve as they have been doing in recent years.

Jean Cordier (Director of Statistics, Banque de France) considered that official statisticians have two principal tools for facilitating cooperation. The first asset is technology, and thus we need to invest in technology to promote cooperation. The second is disclosure/transparency. More data should be exchanged and disclosed, as the list of confidential data is not very long. At the same time, we should differentiate between public, business and private data.

Enrico Giovannini pointed out that in India and China, there is more willingness to exchange data. Indeed, you can already buy non-official data to help understand globalisation issues. Official statisticians should be more courageous in data exchanges. **Heli Jeskanen-Sundström** replied that micro data were useful if accessible, and making micro data available is already possible in Finland through good procedures. However, Statistics Finland ultimately decides on access to data.

Helena Cordeiro (Vice President, Statistics Portugal) said that there is a need to foster cooperation, but participants need to know how and under which rules. She said that these rules should be the same, not similar. For example, there is a difference between "European" and "Community" statistics. There should be clear procedures for exchanging data for statistical purposes only. This is much needed for the ESS and the ESCB data handling. **Hervé Carré** concluded by saying that he expects further progress in these areas.

4 HOW BEST TO COMMUNICATE EUROPEAN ECONOMIC AND FINANCIAL STATISTICS

INTRODUCTORY REMARKS

STEVEN KEUNING

In this final session, we will be looking at the importance of an appropriate communication of statistics which - as the President said in his opening statement - is crucial for any central bank. Indeed, the accessibility and credibility of statistics are important to any organisation producing statistics. In providing some points on which we would welcome your views, I take as a pre-condition that the statistics which we produce are of a high quality and recognised by our users as a reliable source of information.

The impact of ICT on statistics is stronger than ever and will probably be stronger and stronger in the future. It started already in the 1960s when the first computers were introduced. In 1967 Marshall McLuhan's iconic book, *The Medium is the Massage: An Inventory of Effects*, described key points of change in how man viewed the world and how these views were changing due to the adoption of new media. McLuhan's theory was that a medium affects the society in which it plays a role: not just through the content it delivers, but also by the characteristics of the medium itself. I invite you to consider:

1. **How do we use ICT to present data dynamically to target groups, so that data analysis is more efficient, interesting and rewarding?** At the ECB, we are hopefully making a modest contribution to this theme, by means of our data visualisation tools [1] on exchange rates, the euro yield curve and, in the near future, inflation and one-click links from the ECB home page to our Statistical Data Warehouse. This is the moment when we can increase our influence.

2. **Who are our target groups? Should we aim at reaching different target groups according to their specific expertise in statistics, including the related statistical techniques and jargon?** If so, we need to enhance our web communication skills. We need to ensure that our data on the web are presented in a way that they can easily be searched and found. We need a careful use of terminology and language adapted to each target group, without turning to loose language that would confuse the meaning of the statistics. We can be proactive and include references to statistics at appropriate places in information sites. *But what about target groups on whom statisticians have less influence?* A case in point is the perception of inflation and any second-round effects on the credibility of official statistics. We need to better

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1 Users get more insight by looking at tables and graphs, and data commentaries can be reduced to the most significant aspects. Users can more easily select and relate data.

explain our concepts and how they relate to their perceptions. This is also not a one-off event, but a matter of "*frappez toujours*". Even then, direct contact with all our 322 million euro area citizens is impossible.

3. **This implies that we can and must step up our communication efforts, mainly by helping those who have direct access to the people, that is the media**. This can be done by directly facilitating journalists' access to and understanding of statistics. We must be prepared to answer promptly all data questions and to clarify every release of statistics, pinpointing the key indicators, providing graphics and adding easily accessible, "jargonless" metadata.

4. **An even more revolutionary idea is how can we benefit from rapidly growing electronic social networks[2] to directly comment on the statistics and create a brand for official statistics?**

To illuminate us on these issues, I have the honour to introduce to you four eminent speakers.

− First, **Inna Šteinbuka**, Director, Economic and Regional Statistics, Eurostat, is best placed to talk about *Improving trust in official price statistics*.

− Second, **Enrico Giovannini**, Director of Statistics at the OECD, will deal with *The role of communication in transforming statistics into knowledge*.

My two discussants from the world of print and television are obviously well placed to kick off the discussion.

− **Evan Davis** was the Economics Editor of the BBC, a post he held from October 2001 to April 2008, before becoming a presenter on the BBC radio's Today programme.

− **Patrick Lane** is the Deputy Business Affairs Editor of The Economist. He has also worked in Frankfurt, watching the ECB as well as German business, from 2000-2002.

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2   Social networks are an immense source of marketing information.

IMPROVING PUBLIC TRUST IN OFFICIAL PRICE STATISTICS

INNA ŠTEINBUKA

EXECUTIVE SUMMARY

Since the launch of the euro banknotes and coins, developments in perceived inflation, as derived from consumer surveys, seem to show persistent deviations from inflation as officially measured by the HICPs (Harmonised Indices of Consumer Prices), in the majority of euro area Member States.

Amongst other things, the overestimation of inflation by consumers can have a negative impact – for instance on consumption decisions and on inflation expectations. From a political viewpoint, high inflation perceptions can affect the support for the single currency among euro area citizens and can also negatively affect public trust in Eurostat's capacity to accurately measure consumer price developments, which is naturally of particular concern to Eurostat.

In addition to monitoring and further improving the quality of the HICP itself (in part via a programme of HICP compliance monitoring exercises), Eurostat believes that improving confidence in and understanding of official inflation figures can be further facilitated in broadly two ways:

1. By further improving the quality of information on inflation measurement. Eurostat believes that providing more useful and detailed statistical information that allows the user to better understand the issues is crucial. This might include information on average prices, frequent purchases indices, the introduction of an owner-occupied housing index, better explanations on quality adjustment issues, etc.

Given that the target audience is ordinary citizens, additional detailed price information needs to be clear, easy to understand and immediately useful. For example, the future publication of average prices by Eurostat (something which a number of national statistical institutes (NSIs) already do) should start with a limited number of well-defined goods and services whose definitions would remain basically unchanged over a period of time. This would allow people to easily see how the price of a particular good or service has developed. By allowing consumers to see the inflation variations between different items (including before and after euro changeover), this may help contribute to shifting the anchors of existing perceptions and lead to a better general understanding by consumers.

2. By communicating a series of consistent and clear messages, and by coordinating and sustaining these with other public bodies (e.g. NSIs, ECB) and organisations, especially those which can influence the perceptions of consumers (e.g. consumer associations, press).

Eurostat believes that active and coordinated communication on the concept of inflation and its measurement, together with explanations of euro changeover experiences, may raise European citizens' awareness of factual developments. Ultimately, it may mitigate the gap between perceived and measured inflation. Providing the detailed statistical information mentioned in point (1) above would also help underpin this.

The HICP measures inflation for the average expenditure patterns of all households. While Eurostat is confident that the HICP is a quality indicator, especially as a comparable measure of consumer price inflation in the EU, it is understandable that individual consumers may be chiefly concerned with their own personal levels of inflation, which may be higher (or lower) than this average.

Thus, when communicating with the public, there is a need to be open and frank about the differences between consumers' personal inflation experiences and official inflation rates, including the real reasons for any changes in measured inflation. A similar approach is also needed when measuring the impact of euro changeover events.

There is no point in simply contradicting citizens or telling them that they are wrong when they claim that inflation is higher than officially measured. Personal levels of inflation can indeed be higher than the official measured figures, and some individual items do increase in price more quickly than others. Likewise, there is some evidence that changeover effects due to the introduction of the euro may have contributed to inflation. However, these have been measured at only up to 0.3% and not the much larger amounts claimed by some. This needs to be better explained and understood.

Eurostat already has its own established HICP communications work programme which contributes towards these goals. Additionally, via a specially established Task Force on HICP Communications, a framework for coordinating and improving HICP communications has been developed, taking into consideration HICP users' and producers' views.

While the paper focuses on the actions that Eurostat is undertaking to promote a better consumer understanding of the HICP, it also covers the reasons why Eurostat believes its approach will consequently enhance public trust in the other official statistics it publishes.

I   INTRODUCTION

Public trust in official inflation figures is naturally of particular concern to Eurostat.

This paper gives an insight into some of the areas that Eurostat is working on with regard to improving public trust in the area of inflation measurement, in particular HICP (Harmonised Index of Consumer Prices) statistics.

It focuses on three main issues:

Firstly, the issue of perceived versus measured inflation is looked at, including within the context of euro changeover events. Bridging the gap which exists between the two is discussed in terms of the need to improve the measurement of price changes.

Secondly, Eurostat is constantly striving to improve the quality of the HICP. On one hand this is done by monitoring Member States' compliance to HICP regulations, improving existing regulations and introducing new ones to provide a common agenda for improvement and harmonisation. On the other hand, improving the quality and range of information readily available to the public is also seen as crucial; hence, provision of more useful and detailed statistical information is also being undertaken.

Thirdly, effective communication is, amongst other things, essential if consumers are to better understand inflation measures and their purpose. In addition to Eurostat's established and ongoing HICP communications policy, improved coordination with the other relevant bodies and concerted actions are also very important.

A jointly run HICP Communications Task Force (TF) involving Eurostat and the ECB was therefore set up to look at how to develop a framework for coordinating and improving HICP communications. The Economic and Financial Affairs Directorate General (DG ECFIN) also provided important input.

Thus, the paper also focuses on the key communications actions that Eurostat, in cooperation with the other players, intends to be leading or substantially involved in, with a view to improving public understanding and trust in the HICP.

2   PERCEIVED AND MEASURED INFLATION

Surveys of European consumers seem to suggest a significant and protracted divergent development between their perceptions of inflation and inflation as measured by official statistics. In principle, these are two different issues and cannot be directly compared as such. Nevertheless, amongst other things, the fact that the correlation of inflation perceptions to underlying inflation has remained weak is a concern.

Perceived inflation in excess of measured inflation is a widespread phenomenon. Perceived inflation generally exceeds measured inflation by wide margins in most EU countries[1]. Data from industrial countries outside the EU also show some diversity. For example, while perceptions follow measured inflation quite closely in Switzerland, perceptions are to a limited extent upward biased in the US and New Zealand, and strong temporary deviations have been seen for Norway.

The introduction of the euro triggered the breakdown in the relationship between indicators of perceived inflation and the HICP. Although the overall impact on inflation was small, the changeover in the then 12 euro area Member States was associated with a marked increase in inflation perceptions. The resulting "perception gap" between measured and perceived inflation was only gradually reduced. Although in some euro area Member States, perceptions continue to evolve at a higher level than before the changeover, the correlation between headline inflation and perceptions has mostly normalised. After remaining stable for some years, inflation perceptions have increased in the second half of 2007 on the back of a sharp rise in headline inflation.

There are a number of well-researched and documented explanations for this, including the focus of consumers on frequently purchased items, the role of psychological factors, as well as a priori expectations and citizens' lack of familiarity with the new currency[2]. There are a number of reasons behind the perceptions, though it is fair to say that a substantial part of the perception gap remains unexplained.

High inflation perceptions do not call into question the measurement of inflation through the HICP. However, further improvement of the HICP, providing more information about price changes, and better communication could help citizens understand individually experienced inflation.

2.1   Perceptions and the euro cash changeover

Following the euro cash changeover in January 2002, inflation perceptions, as measured by the EC consumer survey, rose sharply in all euro area countries. This increase in inflation perceptions was not in line with actual consumer price developments and reached levels that had never been registered before. At the beginning of 2003, the inflation perceptions indicator started to fall gradually again, but has remained at an elevated level since 2005, although the actual inflation rate has been rather stable at around 2 percent (see Charts 1 & 2)[3].

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1   Source: European Commission services.
2   See also ECB Monthly Bulletins for May, June and November 2007 for articles on measured vs perceived inflation, available at www.ecb.int/pub/mb/html/index.en.html.
3   Regarding very recent developments, towards the very end of 2007 and into the beginning of 2008, the inflation rate rose to above 3% and the inflation perceptions indicator also rose.

Chart 1 **HICP inflation**

(annual percentage changes)

Source: Eurostat.

Chart 2 **Indicator of perceived inflation**

(percentage balances)

Source: European Commission Consumer Survey.

As previously mentioned, there is clear evidence of a widespread perception – in several euro area countries – that the euro introduction in itself caused prices to rise. The Flash Eurobarometer of November 2006 confirmed that a large majority of people (93% of survey respondents) answered that the euro changeover added to the increase in prices.

In reality however, in the first six years since the euro cash was introduced, inflation has been low by historical standards. This is also shown by the official consumer price statistics, in particular the HICP.

2.2   The example of Slovenia

In the recent case of Slovenia, the impact on prices in Slovenia in the immediate changeover period seemed very much in line with the experience of the first-wave changeover of 2002 (overall impact: up to 0.3 percentage point)[4].

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4   Information note on euro changeover in Slovenia, Eurostat, March 2007, available at http://www.ec.europa.eu/eurostat.

In Slovenia, inflation perceptions increased dramatically during the third quarter of 2007, according to the European Commission services. Meanwhile, HICP inflation was on average 3.7% in the third quarter compared with 3.2% in the second quarter of 2007 (note that the figure for October 2007 in fact jumped to 5.1% and, as at February 2008, stood at 6.4%).

In addition to the increase in HICP inflation and the recent oil and food price hikes, the end of the compulsory dual prices' display period may have played a role in the sharp increase in inflation perceptions. This suggests that the gap between actual and perceived inflation that emerged might persist well beyond the immediate euro changeover, as it did in several of the first wave euro area countries.

2.3   Euro cash changeover and communication

Amongst other issues, the euro cash changeover raises the important issue of the need for effective communications. Active and coordinated communication on the different concepts of inflation and their measurement may raise awareness among European citizens of factual developments and, ultimately, may mitigate the gap between perceived and measured inflation.

With this point in mind, it is considered important to provide estimates of changeover effects given the substantial public and media interest in the subject. This provides useful information as well as transparency. It is necessary and desirable for Eurostat to analyse changeovers in cooperation with national statistical institutes (NSIs) (and other partners) as the national statistical institutes have, as one would expect, closer contact with the national economy and therefore more data on a host of issues.

More generally, well-managed euro changeover exercises have helped to reinforce communications on the quality of HICPs, both for the euro area and for individual Member States. Cyprus and Malta are the most recent euro area members. These two countries should be able to benefit from the experiences gained during Slovenia's euro changeover and from the experiences in the first wave. Eurostat is encouraging these countries to maintain a communications policy throughout the changeover period and beyond.

Eurostat's opinion is that in order to tackle the issue of possible public mistrust, it is crucial to openly communicate about the possible reasons why there has been a rise in the rate of inflation. The key here is to avoid what has happened in the past, namely that the euro itself is blamed for higher prices if this is not the case.

Whatever the reasons, there needs to be an effective communications policy to explain the actual reasons to the public. The responsibility for this lies chiefly with the national authorities. Of course, these efforts need to be carried out, not just for the immediate changeover period, but substantially beyond that.

Indeed, the ongoing persistence of high inflation perceptions in certain first- and second-wave euro changeover countries is evidence of the need for communications to be an ongoing rather than temporary event. However, there is no point in simply contradicting citizens or telling them that they are wrong when they claim that inflation is higher than officially measured. Personal levels of inflation can indeed be higher (or lower) than the official measured figures (which are an average). Some individual items do increase in price more quickly than others and this can be demonstrated. At the same time it can also be demonstrated that other items are stable and some may even be reducing in price. Better constructive engagement with the types of organisations that have been amongst the more critical, e.g. press and consumer agencies, is also viewed as important.

3   IMPROVING THE QUALITY OF INFLATION MEASUREMENT

3.1   Monitoring HICP compliance with the regulations

Eurostat must ensure that the statistical practices used to compile national HICPs are in compliance with HICP methodological requirements and that good practices in the field of consumer price indices are being followed.

HICP regulations place obligations on Member States (and on Eurostat) regarding issues such as production, methods and comparability to underpin harmonisation and quality. HICP regulations are regularly reinforced by Eurostat and new ones added, most recently Temporal Coverage of Price Collection. Eurostat is presently working on new standards for the treatment of seasonal items, new standards on weighting, and further standards on Quality Adjustment and Sampling.

Eurostat monitors compliance with the regulations through compliance monitoring exercises. Eurostat's compliance monitoring strategy[5] has involved the introduction of a "Country Desk" approach which facilitates the development of country-specific expertise. This means that each country has a nominated Eurostat officer who is responsible for monitoring developments in each country and overseeing all aspects of compliance monitoring. This requires identification of issues, analysis of data, and follow up and implementation of the recommendations emanating from the compliance monitoring exercises.

Compliance visits are carried out by Eurostat and issues are drawn up in advance in coordination with the ECB and DG ECFIN. Both the ECB and DG ECFIN are invited to participate as observers, and NSIs may invite other national authorities to participate.

Findings and recommendations are published and followed up by Eurostat. The follow up process ensures that the recommendations are taken up. If required, further follow up visits by Eurostat can be made.

5   "Compliance Monitoring Strategy" paper available at http://www.ec.europa.eu/eurostat.

3.2 Improving the HICP

The main need for improving (broadening) the HICP itself concerns the coverage of owner-occupied housing (OOH), which users consider to be an omission in the index. Improving quality adjustment in the HICP is also a high priority.

3.2.1 Owner-occupied housing

The exclusion of OOH in the HICP is now the major shortcoming in the coverage of the HICP and the most substantial difference between HICPs and the national CPIs of at least some EU countries. This is, in particular, due to the fact that OOH represents a sizeable proportion of consumers' expenditures and, moreover, the fact that the balance between owner-occupied and rented housing varies significantly among the EU Member States – leaving differing amounts of households' housing expenditures outside the index. In order to include OOH in the HICP, many technical difficulties need to be overcome.

From the outset, it has been seen as unsatisfactory to exclude OOH entirely from the HICP because this may give a misleading picture of the inflationary pressure in the economy. Hence, the exclusion of OOH may impinge on the ability of the HICP to meet its primary objectives, i.e. assessing price convergence in the EU and monitoring price stability in the euro area. For these reasons, the treatment of OOH in the HICP has been given the highest priority at Eurostat. Consequently, Eurostat and the national statistical institutes (NSIs) are currently running a pilot study to investigate including the OOH component in the HICP on a net acquisitions basis. This pilot is about to be extended to cover all Member States. The decision on whether or not to include the OOH in the headline HICP is still to be taken. Eurostat is thus presently preparing all the preconditions to facilitate and establish a regular production system for House Price Indices and OOH indices, regardless of what final decision is made.

Chart 3 HICP incl. owner-occupied housing vs. inflation perceptions

euro area 12 (annual percentage changes and percentage balances)

— HICP incl. NAQ
····· HICP incl. IR
--- perceptions
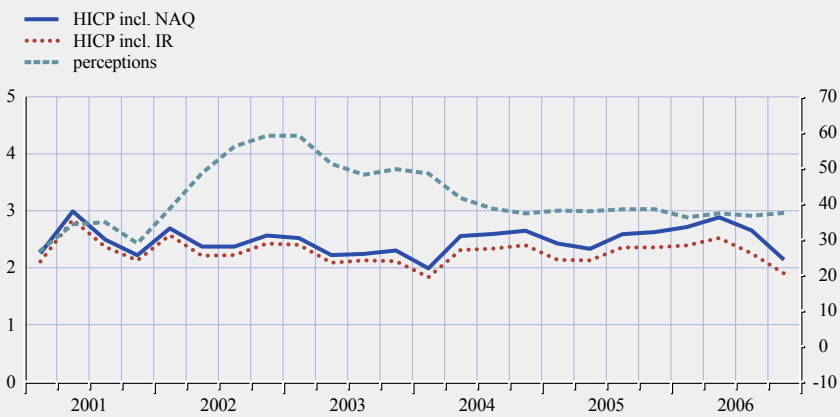
Source: Commission services.

Eurostat is, in any case, considering the publication of a euro area house price index, using the data collected in 2007 from its pilot work with 12 Member States. This would cover prices of newly built and existing houses.

It has to be pointed out however, that the project to include owner-occupied housing (OOH) in the HICP was launched a decade ago on methodological grounds. It is not a reaction to the perception gap and may contribute little to reducing it, whether it be calculated on a net acquisitions basis (NAQ) or using an Imputed Rents (IR) approach (See Chart 3).

3.2.2 Quality adjustment

As is widely recognised, the need for quality adjustment arises because the nature of the goods and services on the market changes over time. For example, it is not possible to simply compare the price of a particular car with a 'similar' one sold five years ago. In the mean time the quality of that car will have changed – the comparison of prices must take account of the quality change.

With the aim of improving Quality Adjustment and Sampling (QAS) methodology, a new regulation was adopted in November 2007. This regulation opens the way for the implementation of product-specific quality adjustment and sampling standards which should lead to deeper harmonisation. The Centre of Excellence on HICP quality adjustment (CENEX), a network of NSIs led by the German NSI Destatis, is currently working on the development of these standards under the new regulation. Based on the findings of the CENEX, further case-by-case standards on QAS should be put in place.

3.3   Providing additional price indices

In order to better explain price changes and to supplement the rather abstract HICP figure with additional indicators, Eurostat plans to broaden the range of consumer price statistics it provides in the near future. The aim is to publish additional information which is clear and easy to understand for the general public. Eurostat may publish more HICP special aggregates, and special user-oriented price indices like HICP at constant tax rates, administered price indices, etc. In addition, Eurostat is considering disseminating detailed price statistics.

3.3.1 Detailed price statistics

In the last quarter of 2007, Eurostat initiated some investigative work on the collection of more detailed price statistics, including average prices, in collaboration with both national statistical institutes and key users. There are several drivers behind the need to develop more detailed price statistics. Eurostat is regularly asked by other parts of the Commission and the Parliament, as well as by other users (private sector, researchers, etc.), for data on detailed average prices of individual products. Within the Commission there is a strong need for monitoring the single market with a focus on the consumer perspective. In particular, the evidence on detailed price differences is one of the principal pillars of the Consumer Markets Scoreboard, an outcome of the reinforcement of EU policies' consumer orientation.

The release of more detailed price indices would help many specialised users, but will also be easier to understand for European citizens trying to relate price developments to concrete goods and services.

Allowing consumers to see the inflation variations between different items (including before and after euro changeover) may also contribute to shift the anchors of existing perceptions.

3.3.2 Price indices of frequent out-of-pocket purchases

Eurostat is considering introducing a new HICP special aggregate covering Frequent Out-Of-Pocket Purchases (FROOPP[6]). Out-of-pocket purchases are purchases which are considered to be typically paid for by the consumer actively – so by cash, card or cheque payments or by individual bank debits or transfers. They typically do not include payments by standing orders or automatic bank transfers. Frequent purchases are purchases which are typically made at least monthly. FROOPP will allow people to easily see how the prices of such frequently purchased items have developed and how they compare with the prices of less frequently purchased items – for which inflation is typically lower.

Prices of frequently purchased items may have an impact on inflation perceptions that is larger than their share in total consumption expenditure. FROOPP comprised 45.2% percent of total consumption expenditure in the euro area in 2007. In line with the current HICP work programme, Eurostat plans to compile the new FROOPP index on a regular basis for analytical purposes.

4   HICP COMMUNICATION STRATEGY

As consumers tend to look to their own national measures of inflation, the issue of consumer perception is therefore first and foremost an issue that is best addressed at a national level, though there is an important role for the relevant European institutions to play.

The joint HICP Communications Task Force (TF) involving Eurostat and the ECB was established in order to suggest elements of a coordinated communication strategy. DG ECFIN also provided important input.

The key issues, which were identified by the TF, may be grouped around two interrelated themes: firstly, the perception of the euro as an inflation-driver, and secondly, the risk of mistrust of the general public in official inflation statistics.

The persistent nature of the perception gap six years following the euro cash changeover suggests that in addition to the factors described in the Section 2, other

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6   The composition of the aggregate has been significantly improved since the discussion began in 2005. It includes food, beverages, tobacco, personal cleaning, recreational and cultural services, personal and home care, books, newspapers and periodicals, pharmaceuticals, recorded media, stationery, postal services, fuel, parking, public transport and pet-related services.

factors are also at play, such as the perceived lack of independence of national statistical institutes, discrepancies between so-called personal and aggregate inflation, the impact of quality adjustments made by NSIs and understanding of the concept of inflation and what it actually measures. In addition, the existence of two parallel systems of consumer price statistics, namely the HICPs and national CPIs, causes confusion and potentially adds to the mistrust surrounding official data.

The TF, which has recently completed an internal report[7], suggests specific key messages which may be used in communication activities between the two. These include:

– The differences between the HICP and consumer survey-related indicators of inflation perceptions and the care that must be taken in comparing the two measures;

– The fact that the impact of the euro cash changeover on euro area inflation was small and that in the first six years since the euro banknotes and coins were introduced inflation has been very low by historic standards;

– The promotion of a better understanding of the HICP, its representativeness and the legally binding standards to which it is compiled.

The members of the TF will therefore work together in order to ensure that common and complementary messages are promoted.

The TF has suggested a set of concrete communication activities to be initiated by the relevant European and national institutions in the coming years.

4.1 Effective communication – actions involving Eurostat

Eurostat has its own programme of work on HICP communications, which, obviously, does not duplicate the TF suggested actions. A main issue has therefore been how Eurostat could continue its existing communications work but successfully involve ECB and ECFIN in an appropriate way.

This section presents a selection of the areas identified by the HICP Communication TF in which Eurostat foresees its involvement[8]. Naturally, most of these may overlap with activities foreseen elsewhere, e.g. in the existing HICP Communications work programme. However, in the context of the HICP Communications TF, some of these may involve an element of closer coordination or involvement with other partner organisations like the ECB, NSIs, etc. Most actions are foreseen for 2008/9.

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7   In the first quarter of 2008, the paper was presented to both the SPC at Eurostat and to the Executive Board and STC of the ECB with generally positive feedback.
8   The actions in public relations (speeches, TV programs and others) are not mentioned.

NSIs should view the contents of the joint Eurostat/ECB HICP Communications report as a kind of "toolbox", as not all actions or messages are necessarily relevant to all countries and some will only be undertaken at the EU level. In any case, individual member states will undertake their own communications actions as they see fit.

Finally, it is worth pointing out that while the HICP is but one of very many statistical areas covered by Eurostat, the HICP is very much a high profile flagship statistic. As such, Eurostat believes that confidence in the HICP helps underpin confidence in other statistics it produces. This further underscores the important role the HICP has for Eurostat.

4.1.1 Publication of additional price indices

The divergence between measured and perceived inflation reveals a lack of information in the general public on the concept and measurement of inflation. This suggests a need for didactically presented information on the HICP, differences between the development of purchasing power and consumer prices, etc. Work on additional indices to accompany the headline HICP should be seen in this context. Eurostat may publish, in the near future, more HICP special aggregates, additional series of price indices and information on average price levels.

4.1.2 Coordination of the websites

The HICP-related content of the websites of the ECB, Eurostat and DG ECFIN currently cater almost exclusively to expert users and fail to adequately address the concerns of the general public.

Common and complementary web content which directly addresses the concerns of the non-expert public should in each case elaborate agreed key messages on the subject area. As a minimum, the websites of all three institutions should include an easily accessible frequently asked questions section, containing main messages and facts to be coordinated (but not harmonised) between the institutions. Additional HICP-related content may be specialised according to the different competencies of the three institutions.

Given that these web pages are intended as a direct communication with the public at large, it is essential that core information should be available in all community languages. Where this is not possible directly, links to national web sites carrying information in the national language would be employed.

4.1.3 Use of new internet technologies to improve data presentation on the websites

New internet technologies such as Rich Internet Applications (RIAs) have become increasingly popular today. RIA technologies could be used in order to improve the visualisation and accessibility, and therefore the understanding, of HICP data published on the participating websites. Such technologies would, for example, allow users to easily select data, visualise it in a variety of graphical forms, see its development over time, etc.

4.1.4 Optimise search engine ranking for inflation-related queries

Webmasters of the participating websites should make sure that their respective website ranks high for inflation-related, multilingual, queries performed on the most popular search engines. Cross-linking between the participating web sites could also be prominently featured.

4.1.5 Inventory and better use of existing publications

All the participating institutions produce various booklets and brochures with HICP-related content, targeted at the general public. It is possible that synergy effects could be realised through establishing a better overview of existing material. An inventory of material would facilitate a mutual reinforcement of efforts and a cross-fertilisation of efforts on a cross-institutional basis. The inventory could be maintained by Eurostat.

4.1.6 Press releases with more accessible and news-oriented contents

It might be possible to stimulate the public's interest for the data by issuing a second press release – simultaneously with the routine HICP press releases – highlighting a topical aspect and making use of the detailed sub-data that normally go relatively unnoticed. This could be done on a regular basis but less frequently than the routine press release. Topics to be addressed would include diverging developments in the individual sub-segments (e.g. in energy, clothing etc.). Additionally, links could be created from the press release to interesting articles.

4.1.7 Monitoring web-based encyclopaedias for factual accuracy

Web-based encyclopaedias such as Wikipedia are widely used by the public at large. Given that a key objective is to improve public understanding of the HICP, inaccurate, incomplete or misleading online information should not be ignored.

As at end-2007, the basic Wikipedia entry on HICP made no mention of Eurostat in the main text, with links to Eurostat's website only given in the footnotes. The entry is therefore considered incomplete and potentially misleading.

While regular monitoring of HICP-related content should be put in place, the sensitive issue of how to rectify any inaccurate, incomplete or misleading online information on HICP issues by the responsible public bodies requires further investigation and development before proceeding [9].

4.1.8 Addressing differences between HICPs and CPIs

While factual information on the construction of consumer price indices is a key part of the communication strategy, it is also important to better explain the issues related to the ongoing dual existence of HICPs and national CPIs.

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9 Care would need to be taken even when making simple factual changes to such information. Accusations of so-called Wikipedia whitewashing – basically reworking text to make things sound more positive than they are have been levelled against organisations and individuals that have edited their own entries. Of course, the HICP is not an entity in itself.

5   CONCLUSIONS

Effectively addressing the issue of perceived versus measured inflation can help improve public trust in official inflation figures.

Eurostat believes that this can be facilitated by both improving the quality of information on inflation measurement and by an effective approach to communication. This should, of course, be underpinned by monitoring and further improving the quality of the HICP itself.

Compliance monitoring is crucial to underpinning confidence in HICP data and Eurostat needs to be assured that member states are complying with the regulations in order to support the obvious need for high quality HICP Statistics.

Putting in place preconditions for including Owner-Occupied Housing (OOH) in the HICP is one of the key priorities of Eurostat. It is absolutely essential to establish a regular production system for House Price Indices and OOH indices. Improving HICP quality adjustment standards is also a high priority.

Providing additional price statistics indices, including detailed prices, frequent out-of-pocket purchases indices and other information on price changes, if carefully executed and promoted, should help improve public trust in inflation statistics and reduce the gap between measured and perceived inflation.

As consumers tend to look to their own national measures of inflation, the issue of consumer perceptions is therefore first and foremost a national issue. Eurostat will continue to play its role in working with national partners to promote effective HICP Communications.

The key to effective communication with consumers is to be open and frank on the real reasons for any changes in the inflation rate. However, care needs to be taken to present a complete picture and not to cause confusion by simply providing a barrage of information. This continues to be a key challenge for all those concerned, including the relevant European institutions, but most particularly the national authorities.

THE ROLE OF COMMUNICATION IN TRANSFORMING STATISTICS INTO KNOWLEDGE

ENRICO GIOVANNINI

I INTRODUCTION

The development of web 2.0 and other Information and Communication Technologies (ICT) are creating a revolution in the way in which information is produced and shared among different interest groups and individuals. The success of Internet platforms where communities create information through interactions provides evidence that the well-consolidated roles of producers and users of information are radically changing. Concepts like "collective intelligence", "crowdsourcing" and "prosumers" are at the basis of successful initiatives like Wikipedia, Innocentive, Facebook and other platforms used to develop both free and fee products and services widely appreciated, especially by younger generations.

How are these trends affecting the statistical world? Can "official" data providers continue to play their role in just introducing new ICT tools (web sites, visualisation tools, etc.) without changing their business model, or do they need to deeply re-think their classical role of information providers to evolve towards something else? What kind of approach do data providers need to develop to contribute to the functioning of a modern democracy in the "information age"? And how can communication strategies help in this respect?

In this paper, we will first discuss where the valued added of statistics comes from. Then we will deal with the way in which information is spread in society and how ICT tools are changing the paradigm of "societal knowledge building". Some OECD experiences in the use of innovative communication tools/approaches will be highlighted in the fourth section. Finally, we will present some conclusions.

2 THE VALUE ADDED OF STATISTICS: WHERE DOES IT COME FROM?

Economic statisticians, and especially national accountants, have developed guidelines on how to measure the value added of each and every economic activity, but very little effort has been made to measure the output and the value added associated with the work of national statistical institutes (NSIs) and international organisations producing statistics. A recent survey carried out on 28 countries[1] indicates that the most frequently used output indicators include: number of publications (or number of releases); number of publication copies sent to subscribers; number of visits to the Internet page; number of indicators accessible in the Internet databases; number of tables viewed in the Internet databases; number of presentations at conferences and seminars; and number of media quotations.

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1   See http://www.unece.org/stats/documents/ece/ces/bur/2008/25.e.pdf.

Many NSIs also try to measure the quality of output with quantitative indicators (punctuality of releases, number of errors discovered in published information, revisions in statistical databases, etc.) or user satisfaction surveys.

Of course, all these measures are very important to monitor the implementation of the work programme and the usage of statistics. But can we really say that they are good measures of output and/or value added of official statistics? If we look at the statistical standards developed to measure economic activities, we find that:

− according to the International Standard Industry Classification (ISIC Rev.1), the production of official statistics is a non-market service[2];

− according to the 1993 System of National Accounts, services are the result of a production activity that changes the conditions of the consuming units[3];

− according to Atkinson (2005), "the output of the government sector should in principle be measured in a way that is adjusted for quality, taking into account the attributable incremental contribution of the service to the outcome".

But what should the final outcome of official statistics be, considering what the SNA says? "Knowledge" seems to be the answer: knowledge of economic, social and environmental phenomena.[4] If a person knows nothing about a particular issue and looks at relevant statistics, should he or she not become more knowledgeable (to a certain extent) about that subject?

We could conclude, therefore, that the value added of official statistics (VAS) is linked to what the actual (not the potential) users know about the facts that are relevant to them in making their decisions. Therefore, from a collective point of view this value can change according to two factors: the size of the audience (i.e. the number of people who know official statistics, N); the quantity of official statistics (QS) actually included in the information sets relevant for each individual's decisions:

$$VAS = N * QS$$

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2 It is part of Section L, Division 75, "Public Administration and Defence", Group 7511, "Administration of the State and the economic and social policy of the community", which includes "administration and operation of overall economic and social planning and statistical services at the various levels of government".

3 In particular: "The changes that consumers of services engage the producers to bring about can take a variety of different forms such as: (a) changes in the condition of the consumer's goods: the producer works directly on goods owned by the consumer by transporting, cleaning, repairing or otherwise transforming them; (b) changes in the physical condition of persons: the producer transports the persons, provides them with accommodation, provides them with medical or surgical treatments, improves their appearance, etc.; (c) changes in the mental condition of persons: the producer provides education, information, advice, entertainment or similar services in a face to face manner".

4 As reported by Wikipedia, the Oxford English Dictionary defines "knowledge" variously as: (i) expertise, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject, (ii) what is known in a particular field or in total; facts and information or (iii) awareness or familiarity gained by experience of a fact or situation.

If only a small group of people is aware of official statistics, the probability of society using them to make decisions is relatively small. On the other hand, if everybody knows about official figures, but individuals do not actually use them when making decisions, their value added will be minimal.

Globalisation, the emergence of the information society and political reforms (that require individuals to take decisions that in the past were taken by the government – pensions, education, etc.) are making N bigger than ever. On the other hand, QS can depend on several factors, such as:

–   the total amount of official statistics that reaches a generic user (QSR). This amount depends on two elements:

$$QSR = QSA * MF$$

where QSA represents the total statistical information produced by the official source and the role played by media (MF), which can emphasise or reduce the actual amount of information communicated to the generic user;

–   the relevance of the official statistics communicated to the user (RS);

–   the trust that individuals have in official statistics (TS);

–   the individuals' "numeracy" (i.e. the ability to reason with numbers and other mathematical concepts, NL).

We could then write the following expression:

$$VAS = N * [(QSA * MF) * RS * TS * NL]$$

Of course, it is extremely difficult to quantify the different elements that enter in the equation. However, some sparse evidence exists. For example, as described in Giovannini (2007):

–   69% of European citizens believe that it is necessary to know key economic data (such as GDP, unemployment rate, inflation rate, etc.)[5], but 53% of European citizens do not even have a vague idea of what the GDP growth rate is in their country and only 8% know the correct figure[6];

–   45% of Europeans tend not to trust official statistics, while 46% tend to trust them;

–   In the United States, the most common source of information on official figures is TV (78%), followed by newspapers (58%), Internet (37%),

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5   These data were collected in 2007 by the European Commission (Eurobarometer) at the OECD's request in preparation for the second OECD World Forum on "Statistics, Knowledge and Policy" (www.oecd.org/oecdworldforum).
6   Similar figures have been obtained by Curtin (2007) for the United States.

radio (34%), family/working networks (34%) and magazines (14%). The five main TV networks quite frequently report data on the unemployment rate (83% of cases on average), but much less frequently report data on GDP growth (46%) or the inflation rate (35%). Looking at the 27 most popular newspapers, on average they cover just 39% of the official reports on GDP, 53% of those concerning CPI and 52% of those announcing the official unemployment rate [7];

– Finally, when disseminating US economic data, Associated Press and United Press International (the most popular wire services) typically do not mention specific source agencies in their releases. This approach has a clear impact on the "brand name" of the source: 23% of Americans have never heard of official unemployment data or the source agency; the comparable figures are 34% for CPI and 40% for GDP.

This review underlines three key points for the following discussion: first, the way in which statistics are used/perceived by users (especially citizens) depends on several factors, and some of them are not under the control of the original source; second, in several countries the situation is far from being satisfactory in terms of trust in and communication of official statistics; third, statisticians have to address these issues (measurement of their output and value added, relationships with media and final users, brand image, etc.) very seriously, especially if they wish to respond to the challenges coming from the web 2.0 revolution.

3   HOW IS INFORMATION DISSEMINATED?

We have seen that several obstacles can make the transmission of information to potential users difficult. Moreover, as Einstein said, "information is not knowledge": therefore, what people know must not be confused with the amount of information they receive every day and absorb from the most disparate sources. Instead, knowledge (which ultimately represents the value added of statistics) refers to a complex and dynamic process involving cognitive mechanisms. Several models have been developed to explain how these mechanisms work, and one which is particularly relevant to this discussion is the model based on the so-called epidemiologic approach (see Sperber, 1996).[8] In a nutshell, it states that information is spread in a society like a virus. At the beginning only a few people catch it, but then each "infected" person transmits it to others, and so on.

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7   "If we presume that the 27 papers with the largest circulations all had access to the wire reports, the lack of complete coverage would be an active decision of the newspaper to not carry the report. It was likely to reflect a judgement about the newsworthiness of the latest figures given their subscribers' interests. There was a tendency for newspapers to more frequently report the latest official figures when it represented an unfavourable development, which may reflect the greater importance people place on the information content of 'bad' news" (Curtin, 2007).
8   Originally developed for cognition and culture, the concept of epidemiology has been increasingly applied to the study of a wide range of phenomena and recently economists have also begun to refer loosely to epidemiological processes for economic modelling. In particular, Carroll (2001 and 2002) has recently provided a new explanation of the way in which expectations that appeal to epidemiology are formed among people.

However, every time there is a transmission, the information changes a little, as viruses do.

In this context, three points require special attention:

– the amount of news released by the media plays a key role in affecting what people know;

– the quality of media and their way of presenting information can make a huge difference in people's capacity to grasp the sense of the what is communicated;

– the degree of exposure to the media is not sufficient for a person to be properly informed and to process the news, but the person's interest in the subject plays a key role in activating the cognitive mechanism.

If information is spread across society as a virus, which evolves with every passage, it would be fundamental for statistical data providers to reach as many people as possible at the beginning of the chain, to "vaccinate" them against the "ignorance disease". But to do that, they have to: disseminate information relevant to people, present information in a way that people can relate it to their own interests and use language/tools coherent with those used by people in other contexts. Unfortunately, this is not what statistical data providers normally do. Instead, they rely heavily on mass media, who in several cases do not help in spreading the correct information. So, is there an alternative?

4   THE WEB 2.0 REVOLUTION

Of course, data providers are aware of these problems and have heavily invested resources to improve their communication tools, especially the use of Internet. But new ICT tools and the success of Internet are also profoundly changing the way in which people, especially younger generations, look for and find data. For example:

– according to Internet experts, 95% of those who use Google do not go beyond the first page of occurrences; and once they reach a particular site, a similar percentage of users do not click more than three times to find what they want: if after three clicks they have not found what they are looking for, they quit the site;

– the way in which "discovery metadata" are structured is fundamental to being placed in the first page of Google's results, but these metadata have nothing to do with the intrinsic quality of the information provided. Therefore, sources better able to structure their "discovery metadata" can appear above than those which have better quality information but do not invest in this kind of metadata.

Everybody knows the most popular tools and success stories developed by the Internet community over the last few years. Fewer may be aware of the deep changes that the web 2.0 is producing in the way in which "collective knowledge" is generated today using "wikis", and how this is affecting the "digital native" generation's thinking.[9] Why is this so important for our discussion? The main reason is that this approach tends to transform the "consumer" of a particular information/service provided via Internet into a "prosumer", i.e. a person that is simultaneously a consumer and a producer of the information/service. Wikipedia is the most popular example of this approach, but there are many other platforms that use "collective intelligence" to develop innovative services[10].

Of course, reliable statistics cannot be generated using "collective intelligence", but this does not mean that this approach does not have a huge impact on the way in which statistics are perceived or used. If, for example, an authoritative member of a "community" spreads the information that a particular official figure (let's say, the inflation rate) is unreliable, it would be extremely difficult to change community members' minds using the arguments usually used in statistical circles. Of course, the system also works to underline the validity of figures or sources. Just to stress how this approach is typical of new Internet platforms, the developers of Wikipedia have recently proposed to build a discovery system based on "trusted user feedback from a community of users acting together in an open, transparent, public way". In other words, the proposal is to replace Google discovery algorithms with a system based on the "recommendations" provided by users. This would represent a great challenge, but also a key opportunity, for statistical data providers, who should develop a new communication strategy to convince the whole Internet community to recommend official statistics instead of other sources.

The real question here is: are official data providers ready to engage themselves in this "new world" and therefore to invest significant resources in new forms of communication? For example, if web 2.0 platforms are a marketplace for discussion, and not just a repository of information, should statistical institutions not create discussion sites about the quality of data used in the public domain, including that of their own data? Of course, this could open a "Pandora's box"

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9   *Web 2.0* refers to a perceived second generation of Web-based communities and hosted services – such as social networking sites, wikis and folksonomies – which aim to facilitate collaboration and sharing by users. The main difference between the first and the second generation of Internet platforms is that the former are mainly "repositories of information", while the latter are "marketplaces" where people exchange and share information, meet people, discuss ideas, etc. A *digital native* is a person who has grown up with digital technology such as computers, the Internet, mobile phones and MP3. A *wiki* is a medium which can be edited by anyone with access to it, and provides an easy method for linking from one page to another. Wikis are typically collaborative websites, though there are now also single-user offline implementations.

10 According to Wikipedia, "collective intelligence is a form of intelligence that emerges from collaboration and competition by many individuals" and it can be applied to several fields, such as cognition (market judgments, prediction of future economic and social events, etc.), coordination (collective actions, communities interactions, etc.) and cooperation (open source development, etc.). The study of collective intelligence may properly be considered a subfield of sociology, business, computer science and of mass behaviour, a field that studies collective behaviour from the level of quarks to the level of bacterial, plant, animal and human societies.

and give space to those who criticise official data, but on the other hand it would allow statistical offices to be perceived as transparent institutions, as well as to express their criticisms of unreliable data produced by other sources, as stated by one of the Fundamental Principles of Official Statistics adopted by the United Nations (Principle 4: "The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics"). This proactive (and courageous) approach would certainly be coherent with the idea of making the statistical agency a "knowledge builder" for the whole society, putting its unique technical capabilities at the service of the whole society, helping it to discriminate between good and bad information, and thus gaining a stronger legitimacy.

5   OECD RECENT EXPERIENCES

Over the last two years, the OECD has decided to experiment with new tools to make its statistics more accessible and reusable by users, as well as to test new approaches to communicating statistics and engaging people in exploring data and sharing their findings. It has undertaken the following actions:

– In 2006, the OECD Council endorsed a new policy for dissemination of statistics, which involves the re-organisation of statistical products into three broad categories: *OECD Facts and Figures*: a series of simple tables, with commentary, aimed at non-specialists and specialists, to be freely available to all; *OECD Core Data*: up to 1,000 ready-made tables, with metadata, drawn from all OECD databases, aimed at students and informed and specialist audiences, to be freely available to all; *OECD Statistics*: a portal giving access to all complete OECD databases, to be available on subscription using the free-at-the-point mode.[11]

– The OECD is piloting the use of Adobe Flex to display statistical data graphically online. In order to ensure the portability of developments to the greater statistical community, this development is based on content in the Statistical Data and Metadata Exchange (SDMX) ISO standard.[12]

– In 2007, the OECD made the data published in its "Factbook" (a selection of more than 200 economic, social and environmental indicators) available on Swivel.com, a web 2.0 platform for uploading, exploring, sharing data and disseminating users' insights via email, web sites and blogs. To manage OECD data, Swivel created a special "Official Source" label to distinguish data uploaded by Organisations like the OECD from that uploaded by individuals.

11 A key point of this strategy is that all statistical data and metadata need to be made available for easy reuse and reinterpretation by others, including the web 2.0 community.
12 The OECD is working with the European Central Bank (ECB) to create a Flex application that can interrogate SDMX data structure definitions and allow the user to view SDMX-ML data graphically and in tabular format.

– In cooperation with the Gapminder Foundation (www.gapminder.org), the OECD is planning to upload "2008 Factbook" data on Trendalyzer, the software developed by Hans Rösling and his team. The OECD is also planning to create video clips where analysts would present "stories" about countries' performances, policy reforms, etc. based on Factbook data and the use of Trendalyzer and other dynamic visualisation tools.

– As one of the key issues for organisations that produce statistical indicators concerning countries' performances is to represent, in a synthetic way, the relative position of each country vis-à-vis the others or relevant groups of countries (OECD totals, EU totals, etc.), the OECD developed *Dynamic Country Profiles* based on 32 indicators derived from the Factbook. These profiles are represented through four dynamic "spider charts" (or "radar charts"), two concerning economic dimensions, two social dimensions and in which 8 indicators cover the selected country and the OECD total/average. The user can select either a particular year or the "animated presentation". In the latter case, moving averages are used to show how the country situation evolved over time in comparison with the OECD total or other countries.

– In March 2008, the OECD Development Centre launched Wikigender (see www.wikigender.org), the first "wiki-based" OECD initiative which aims to facilitate the exchange and improve the knowledge about gender-related issues around the world. A special section is devoted to statistical evidence, where "official" and unofficial data can be easily recognised and evaluated by the audience. In this respect, Wikigender serves as a pilot for the proposed development of a "wiki-progress", in the context of the Global Project on "Measuring the Progress of Societies" (see www.oecd.org/oecdworldforum).

6   TOWARDS A PARADIGM SHIFT

Some people may argue that all the "signals" mentioned in this paper can be interpreted as being part of a "storm" and not as indicators of a paradigm shift and that there is no need for a radical (and quick) change in the way official statistics are disseminated and communicated.[13] According to several people, we are facing a real paradigm shift.[14] The OECD has recently finalised a report

13 In *The Structure of Scientific Revolution* (1962) the philosopher of science Thomas Kuhn calls "paradigm shifts" the phases of revolutionary change that occur along the development of a scientific discipline when the main assumptions, values and instruments undergo a radical transformation. The applicability of this concept to statistics is discussed in Giovannini (2007).
14 For example, according to Ayres (2007) "we are in a historic moment of horse-versus-locomotive competition, where intuitive and experimental expertise is losing out time and time again to number crunching. In the old days, many decisions were simply based on some mixture of experience and intuition. Experts were ordained because of their decades of individual trial-and-error experience (…) Now something is changing. Business and government professionals are relying more and more on databases to guide their decisions (…) Super Crunchers (i.e. statistical analyses that impact real-world decisions) are not changing the way that decisions are made: they are changing the decisions themselves".

on opportunities and challenges coming from these new technologies and it reached the same conclusion: the web 2.0 is producing a revolution that requires very careful consideration and response.[15] Moreover, it states that "in a world in which people and institutions are 'bombarded' by information every day, each Organisation needs to enhance its role as 'knowledge builder'. To benefit fully from new ICT tools, it needs to develop, with the help of information specialists (including librarians), a true 'knowledge management' approach, by introducing a process to classify information properly, reduce duplication and facilitate dissemination, repurposing and searching. In doing so, it should explore methodologies like crowd sourcing, wikis, etc."

The claim that statistics is a technique that serves higher public interests and is performed by skilled people in administration compellingly represents the popular image of an "operational discipline" that mostly consists in the production of official data. But now, taken that a discipline's function and target identify its paradigmatic stance, we should recognise that the changes from "information to knowledge" and from "government to society" are relevant enough to demonstrate a "paradigm shift" in official statistics. This revolution comes from the advances in technology, rather than from a new statistical technique: as suggested by Ayres, because of ICT changes, data are becoming a "commodity" and statistical analyses are no longer a kind of methodology whose results are accessible to a small audience, but a key process in producing knowledge for all people.

In this context, communication is not just an appendix of the core business focused on data production, but a key function that can determine the success or the failure of an official data provider. Being open to the dialogue with users using the web 2.0 approach is not a choice anymore: it is a must, especially to ensure that younger generations will look at official statistics as an authoritative source.

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15 The report states that "the new wave of ICT tools is changing the work of organisations and societies, by enabling individuals to build networks, driven by different values and working styles (horizontal instead of vertical, participatory instead of authoritarian, bottom-up instead of top-down, circular instead of sequential). These new approaches affect the interaction between organisations and their users/stakeholders". It also underlines that "the new ICT tools have a great impact on the rising generations (the so-called 'digital natives'), those who, in 10-20 years, will be recruited by the OECD. The Organisation's use of ICT can affect its capacity to attract young staff. To increase its efficiency, to facilitate the recruitment and retention of the next generation of experts, the OECD needs to review working methods and hiring policies and introduce practices that are more in line with the way the new generations work".

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DISCUSSANT'S REMARKS

HOW NOT TO LIE WITH STATISTICS

EVAN DAVIS

I   INTRODUCTION

There can be nothing more annoying to official statisticians – who perform their work diligently and reliably – to find the public disbelieving of the numbers they are told, or at least indifferent to them.

The two papers presented here are both concerned with the problem that statistics do not always get the attention or reception they deserve. It is a credit to them both that only a small amount of the frustration statisticians naturally must feel comes through. Enrico Giovannini and Inna Šteinbuka both start from a premise that statisticians cannot just sit back and wait for their data either to be noticed or to be handled exactly as they would wish. Dissemination is something that has to be worked at.

Enrico Giovannini discusses the need for statisticians to adopt a modern communications strategy, particularly one that embraces the web 2.0 "wiki" technology. The use and abuse of statistics by consumers newly empowered by technology to obtain figures they need has to be addressed if data are to be useful and used. As Giovannini says, "Communication is not just an appendix of the core business focused on data production, but a key function that can determine the success or failure of an official data provider".

Inna Šteinbuka looks at the prime current example of a disparity between public perception and official statistics: inflation. She goes some way to explaining the perception gap with reference to the differential price performance of frequent-out-of-pocket-purchases and the missing housing component of HICP inflation. But she rightly says "there is no point in simply contradicting citizens or telling them that they are wrong when they claim that inflation is higher than officially measured". She accepts that the official inflation rate does not equate to the actual inflation rate felt by any particular person with his or her own consumption pattern.

These papers are welcome in addressing the important issue of how official data is communicated and how it is eventually interpreted. Both papers demonstrate intelligence and integrity in trying to develop a path for statisticians to follow and in sorting through some of the issues involved. I agree with many of the points made and particularly the idea that statisticians must not be lazy when it comes to communication.

But I would like to clarify and amplify that point with a three points of my own, under three headings: perception, suspicion and communication.

When there is a gap between public perceptions of something and the official data, the duty of the statistician is not to immediately dismiss this as a public *mis*perception, but to treat it as potentially an interesting piece of information meriting research. Indeed, statisticians sometimes generate interesting statistics when they investigate perception gaps.

As it happens, there are many different reasons that a public perception can diverge from an official statistic, and each occasion demands its own answer.

On occasion, a perception gap might indicate that the official data is wrong, or measuring the wrong thing.

On other occasions, uncovering what exactly drives perceptions can itself be a useful exercise. The euro currency switchover provides a good example. The fact that by studying the data, one could find a divergence between inflation for frequently and less-frequently purchased items was a constructive finding.

On many occasions, perception gaps can be explained by some fairly common human behavioural traits that might be unilluminating to a statistician – but might also be quite revealing. Understanding or coping with these public perceptions and misperceptions is not a headache, it is an opportunity.

For one thing, perceptions are loosely drawn and are fairly rough and ready. (I am sure we have all heard people argue that the euro "caused prices to double", an assertion that is manifestly exaggerated but nevertheless strongly felt). More importantly, perceptions can be slow to change; they are often adaptive rather than forward looking. So if people's view of a rapidly changing variable is anchored in the past, do not be surprised if it lags. (That might explain why the perception of higher inflation post-euro conversion never fell back as low as it might have been expected to do.)

However, the most important point about perceptions (well observed in the behavioural economics literature) is that people tend to be very selective in the evidence they register. If they start out believing something might happen, they will tend to notice or give more weight to the evidence in support of it. Often, they are selective for other reasons.

But if a perception gap can be accounted for by the public reweighting the data, or selecting pieces of it, it is worth finding out what data it is the public are most interested in.

Take the example of inflation perceptions at the moment. They are diverging from official figures. This is not a euro story, as the phenomenon is not confined to the euro area. And we cannot persist in always assuming this is explained by the frequent-purchase argument. The statistician's task is to find out and disseminate what items the public are focussing on in drawing up their perception.

On the example of inflation, I suspect there is always a slight tendency for people to notice price rises more than price cuts. But right now, the important factor that seems to explain the perception gap is the weight the public give to non-discretionary rather than discretionary spending.

The British *Daily Mail* newspaper on 18 April 2008 ran a front page lead story called *The Real Rate of Inflation*: "The Mail launches its new Cost of Living index which reveals food prices rising at six times official figure". (The Mail's food inflation measure was 15.5 per cent while official overall inflation was 2.5 per cent and official food inflation was 5.9 per cent).

There is a degree of possible exaggeration in the Mail's treatment of the story (and statistical authorities must always understand that players in a competitive media world do fight to interpret data for their customers in the most interesting way). But even so, the Mail is on to something. People treat inflation in the things they feel they have to buy as worse than things they can choose not to buy. As the Mail put it: the CPI "fails to reflect the real problems in homes up and down the country because it includes the cost of luxury items such as flat screen TVs".

At the moment, price rises are particularly prevalent for food and fuel. Domestic bills are not always highly visible as they are often paid by direct debit from a bank account. But people put a lot of weight on them.

If this is the explanation for a perception gap, could not statistical authorities help illuminate the issue to the benefit of public understanding of price rises, and their own perception of them?

3   SUSPICION

When there is some kind of perception gap, it is perhaps best not to think of the public at large as trusting or distrusting statistics. They trust or distrust people.

And the problem for many statisticians is that as long as the people who mostly talk about statistics are not generally trusted, the statistics themselves will get a bad name. Quite simply, suspicion of those doing the telling will make us distrust the evidence that they tell.

In practice, the people who use and abuse statistics tend to be policy-makers, politicians, the media and think tanks. The vexed matter of public trust (or lack thereof) in them arises in many areas of public debate and is surely not confined to statistics. But if politicians in particular appear to be *producing* the statistics that make the case they want made, do not be surprised to find the statistics are treated with scepticism.

In such cases, it is not always worth looking at the statistics very closely to find why they are not believed; it is often more important to look at who is using the statistics, whether they are using them objectively and why that group is the subject of general public suspicion and disbelief.

Often the public are simply suspicious of claims made by those in authority because they believe someone is trying to "sell" them something and hence has a reason to manipulate the evidence.

A good example might be the single currency. If the authorities show signs of strongly wanting to introduce it, it is only natural that the public will consider those same authorities as having a conflict of interest when it comes to interpreting (or perhaps even producing) the data that measures the success or failure of the project. Why would you trust the people who sold the policy to present the evidence on it objectively?

Where the public harbour some kind of suspicion about what they are being told, the important point for statisticians to focus on is not why the public do not believe their statistics; it is why the public are casually associating independent statisticians with the authorities who are not independent.

If the statisticians are not themselves independent, the answer is obvious. They should seek more independence and get the message across that they are so.

If the statisticians *are* independent, they might want think about how to communicate that rather than a particular interpretation of any figures.

4   COMMUNICATION

In most areas where the public's reaction to statistics is considered a problem, there are issues of both perception and suspicion together. For example, the public have a perception that prices rose after the introduction of the new currency; and they are suspicious of those trying to alleviate their concerns. The perception is hard to fight, because the public are suspicious of those doing the fighting.

Some kind of communication must be the answer to the problem, but what kind of communication exactly?

The natural reaction of policy-makers – one that is often observed in reaction to public scepticism on issues – is to sell their view as hard as possible, and to defeat alternative views as robustly as possible. This is the strategy that Inna Šteinbuka says is futile, and there is a good reason for her to do so. When the authorities promote an argument *that it is in their perceived interest to promote*, there are two ways listeners might react. One is helpful to the authorities, but the other is not:

a) First, the public could react by understanding the policy-makers argument better, and being persuaded by it.

b) But secondly, they could react by strengthening their view that the authorities simply say what they want us to believe, rather than what is actually true.

In many cases, the more loudly you shout your point of view, the more the public react with (b) not (a). They simply decide not to trust you.

The correct response in this situation is not to try harder to communicate a specific argument, but to try less hard. It is to appear to be as genuinely honest and objective as possible and open to the alternative interpretations.

To put it more prosaically, if you want to persuade the public of something – whether that is to adopt the euro or embrace nuclear power – you should not sell these things as hard as you possibly can. You should also articulate the arguments against them as strongly as possible, and then explain why – despite the strength of the negative case -- you still incline to the positive one. It is risky, because you may lose support if the public listen to the negative arguments you have given. But more likely, they will interpret the fact that you can explain the negative arguments so well as evidence that you are not trying to spin your particular positive view, and therefore that you can be trusted. I take it as read, that in many complex areas of public debate, once you are trusted you usually get your way.

This implies that as far as statistics are concerned, it is usually incumbent on officials to understand why the public has come to the view that it has, not the public to understand why the authorities have come to the view they have. Once the authorities understand and articulate why the public perceive things as they do, they will earn the trust that they seek.

This represents an important paradox: the harder you push a particular point of view in these circumstances, the less the public will believe you. The more keen the authorities appear to be in getting a particular line accepted, the less anything they say will be treated as objective. Any attempt to "spin" a more favourable interpretation of the statistics will usually not just be futile, *but altogether counter-productive*.

The correct metaphor is that of the Chinese finger trap, which locks around your fingers with a design that ensures the harder you pull try to pull your finger out, the tighter the trap secures itself.

5   CONCLUSION

Many leaders, when confronted with a gap between their own perception and that of the public, see a communication problem. They react by asking how they can more effectively communicate the "truth" to the public so any gap in interpretation disappears.

But not all communications can get you out of a real hole where mistrust exists.

What statisticians should do is ensure they are seen as independent. And the best way to be seen to *be* independent is to be independent, and to take a proactive role in explaining to the public why their perceptions are as they are, and why the data does not necessarily match them. This does not involve persuasion; it involves elucidating different views, and articulating the best case for them.

In the case of price statistics for example, it would involve publishing some kind of (one-off) analysis that outlined exactly what kind of inflation measure you could adopt to match the general perception of price rises. The public and the press would appreciate it, and if you did it well you would show the weaknesses of that measure, as well as the strengths. Trust and understanding would both be enhanced; and if there is ultimately a correct view to be found, trust and understanding will help advance it.

You can see this as a general argument for trying to use fewer powers of persuasion, and more powers of understanding and simple communication.

Before deciding whether one can "correct a public misperception" by arguing more forcefully, we have to be sure there is not some substantive problem that is bothering the public which their leaders simply haven't understood. Usually there is.

PATRICK LANE

This note summarises and comments on the main elements of the papers by Enrico Giovannini and Inna Šteinbuka. It also makes some additional observations from the perspective of a print journalist.

I   SUMMARY AND COMMENTS

The two speakers made quite different contributions. One paper was very specific in its subject matter; the other was far more general. Inna Šteinbuka's paper focused on the perception of a specific data series: Eurostat's harmonised index of consumer prices (HICP). Enrico Giovannini's paper dealt with a broader question: the difficulties caused by the development of information and communication technologies that enable statistics to be presented in new forms and discussed, with greater or lesser accuracy, in new forums.

Despite their different perspectives, there is a common thread connecting the two papers: trust in official statistics, or the lack of it, and what statistical agencies can do to deepen it. I shall discuss Ms Šteinbuka's paper first and then turn to Mr Giovannini's.

With HICP, the problem is clear: people seem to perceive inflation rates in the euro zone to be higher than Eurostat says, measured by the HICP. We can only say "seem to" because perceived inflation is measured by percentage balances (of responses to a survey) rather than a rate of increase. Furthermore, the inflation rate that survey respondents perceive need not correspond to that measured by the rate of increase of the HICP. Still, there does appear to be a gap. The gap between perception and the statistical record was especially marked in the euro zone after the first introduction of euro notes and coins on New Year's Day 2002. A similar pattern was observed after Slovenia adopted the new currency. Although the changeover does seem to have increased the inflation rate, the effect — three-tenths of a percentage point, we are told — was much smaller than popularly believed. A good deal of press coverage at the time endorsed and helped to fuel the popular view: I was living in this city at the time and added a new word — "*teuro*" — to my German vocabulary.

The answer to this, Ms Šteinbuka says, has to consist of more than flatly contradicting the public. In essence, she divides the answer into three bits: improving the HICP, for instance by including owner-occupied housing; providing additional price indices, for example frequent out-of-pocket purchases; and improving communication. It is hard to object to any of this. Excluding housing costs, whatever the difficulties in measurement, from Eurostat's standard measure of inflation, has always seemed anomalous. Extra price indices raise a danger — that publishing several rates may cause confusion (discussion of American inflation isn't helped by the number of different measures) — but I think that is a bearable risk. On improving communication, I will have more to say below.

I have a question, though: how much does it matter if the citizens of euro area countries appear systematically to misperceive the inflation rate? One possible reply is that it matters politically, because they mistrust the new currency. Well, maybe, but any danger on that score to the acceptance of the new currency seems to have passed. I wonder whether the reported belief that the "*teuro*" had increased inflation really reflected resentment in some countries that the currency had been changed without asking the citizenry. Another reply is that it matters economically. The misperception of inflation may have had economic effects: if people thought that their real incomes had fallen, or were rising less quickly, because of the new currency, then consumption should also have fallen, or risen less quickly. I do not know whether there is any evidence for this.

The Giovannini paper starts with a pertinent, fundamental question: what is the value of statistics? Quite rightly, it answers "increased knowledge" rather than "more information". The problem is that between the producer of information — the statistical agency — and those who are presumed to thirst after knowledge — the public — there has to be some system of communication. That system of communication lies largely outside the control of the statisticians. "Instead," writes Mr Giovannini, "they rely heavily on mass media, which in several cases do not help in spreading the correct information."

This reminds me of a game that I used to play in childhood, called Chinese Whispers. The players sit in a circle, and someone starts by whispering something — anything they like — in the ear of the person to her right. The receiver of the message whispers what he thinks he heard in the next person's ear. The message is passed on again, and so on until the last person in the ring gets the message, and calls it out. Only rarely does this match the original message. It is not always easy to catch what someone whispers in your ear. And, of course, not all the children in the circle are entirely truthful in passing on exactly what they hear.

The difference between the original message and what is ultimately broadcast is hugely amusing to small children. The distortion is less funny if the initiator of the message is a statistical agency and the people sitting in the circle are TV channels, newspapers and magazines. By the time the message gets to the last person in the chain — the public — the original message may have been badly distorted. Certainly, some of the subtlety may have been lost. Now there are extra players in the circle, in the form of websites. Some of these are part of traditional media organisations. Some are not — notably those, such as Wikipedia, which use "collective intelligence" to analyse and discuss the data that official statisticians put out.

The growth of such online groups presents statisticians with both a threat and an opportunity. The threat arises because if an "authoritative member" of such a group spreads the word that a particular statistic is unreliable, it may be difficult to argue against him. The opportunity arises because the internet gives statisticians the chance to cut out all the meddlesome whisperers and go straight to the last person in the chain. Through their own sites and through other specialist statistical websites, such as swivel.com and gapminder.org, the data can be taken straight to the user.

I agree with all this, but partly in the interest of debate I would caution against overestimating either the threat or the opportunity. The threat clearly exists: the internet has created once unimaginable possibilities for spreading falsehood as well as truth. Yet it ought to be harder rather than easier to maintain false or flimsy interpretations of statistical information in this world. If an "authoritative member" of an online group spread the word that a particular statistic was unreliable, when it was in fact reliable, he should not remain authoritative for long. Assuming that people learn from errors, good information is more likely to drive out bad than the other way around.

As for the opportunity for statisticians to get their data across more accurately and to influence interpretation, its existence is also plain. Mr Giovannini asks whether creating discussion sites might "open a Pandora's Box and give space to those who criticise official data". Of course it would, and a good thing too. Most newspapers' letter pages carry more than a fair share of critical letters, and the same goes for their modern successors, online comment sites. Journalists will tell you that readers' comments can sometimes be a nuisance; but in our more honest moments we will also admit that we also learn from them. Just as newspapers belong to their readers, official data belong to the public.

But there is also a risk of overstating the opportunity. The thought of getting the message across through online presentations is seductive. And for those who want to go straight to the source, such devices will be invaluable. However, most of the communication of official statistics will surely remain indirect, through TV, the print media and news websites. Of course, I may be overestimating the importance of my own trade. But I think that for several reasons communication through the mass media will be every bit as important as it is now.

One reason is that you need someone to sift all this stuff, to choose what you need to know. Some people will have the time and inclination to click through the data, view charts and so forth. Most, though, will not, and will in effect delegate the job to journalists in print, in broadcasting or online.

A related reason is that context is important. Data alone are not enough. People do not just want to know what the inflation rate is. They want to know why it matters whether it is 3% rather than 2.5%. Which prices are going up fastest? Will they keep rising fast, or is this just a blip? Will interest rates go up? Might their wages go up? In other words, they want their data to be not only filtered but also interpreted. They may want to read articles written by statistical agencies, but the usual media, online or offline, are probably better placed.

Another reason is trust. People do not just need to trust statistics. They need to trust the interpreter too. My point is not that people do not trust official statisticians. Rather, it is that with so many more interpreters to choose from, those you can trust are more valuable than ever. This ought to be good news for some of us — including, I hope, both the BBC and *The Economist*.

The developments in information and communications technology to which Mr Giovannini refers affect users and interpreters of statistics as well as those who produce them. At *The Economist*, statistics have long been a staple. Indeed, the magazine produces as well as consumes them. Our commodities index dates back to the 1860s, almost as far as *The Economist* itself. The Big Mac index, with which you may also be familiar, has already been going for more than 20 years.

Mainly, though, we are consumers and interpreters of numbers. In print, statistical releases may provide the reason for a story — either because they are newsworthy in themselves or, more likely, because they provide a "peg" for an article. Statistics are the evidence from which a story is constructed. At the same time, they illustrate our writing — literally, when presented in graphical form. We take a lot of care over charts, trying to convey information succinctly, yet trying to avoid overburdening the reader with too many flourishes. The house rule is that a chart should be capable of being understood without its surrounding text. (I should probably add that charts have a decorative function too: with drawings and photos, they are essential to breaking up otherwise solid slabs of prose.)

The implications of advances in information technology are fairly plain: a mixture of opportunities and threats. For a start, it is much easier to get our hands on useful data quickly than it ever used to be. You want indices of American house prices? Take your pick: OFHEO? Case-Shiller? Case Shiller ten-city, 20-city, or national? The numbers can be downloaded, chopped and charted within a few minutes. Of course, it's easy for everyone else too.

That implies that it is all the more important to add value to the data, in analysis and interpretation. Again, however, a lot of competition has sprung up. The really interesting part of this comes with the ability to present data in new ways when putting stories online. Of course, it is straightforward to produce more stuff and *The Economist* has taken advantage of that: every day, our home page contains a feature called "At a Glance", consisting of a chart and around 100 words of explanation.

However, for print journalists, used to two-dimensional charts, the real novelty lies in the ability to make data change or move, and to add voices as well as text. Hans Rösling's presentations are the most obvious example: they are truly breathtaking, especially the first time you see them. Some publications have gone further in exploiting this ability than others: it's fair to say that we are still working on what we should do.

DISCUSSION SUMMARY

Steven Keuning said that communication of statistics is crucial for any central bank. Indeed, the accessibility and credibility of statistics is important to any organisation producing statistics. **Steven Keuning** invited the audience to consider four issues. First, how do we use ICT to present data dynamically to target groups, so that data analysis is more efficient, interesting and rewarding? Second, who are our target groups? Should we aim at reaching different target groups according to their specific expertise in statistics, including the related statistical techniques and jargon? And what about target groups on whom statisticians have less influence? Third, this implies that we can and must step up our communication efforts, mainly by helping those who have direct access to the people, that is, the media. Fourth, an even more revolutionary idea is how to benefit from rapidly growing electronic social networks[1] to create a community for statistics and create a brand for official statistics?

Federico Signorini (Head of Economic and Financial Statistics, Banca d'Italia) raised the question of the extent to which people act on their inflation perceptions. For example, does perceived inflation matter for consumption, which in practice develops much more in line with the official HICP? There is a risk of doing too little or too much, and there must be a careful consideration of a multiciplicity of indicators. Often an occasional study is enough and there is no need for a publication of alternative indicators "every month". We need to be cautious and avoid blurring the picture.

Athanasios Orphanides pointed at the difficulty of explaining, transparently and in more detail, the difference between the use of actual data and the use by statisticians of imputed or model-based data in the production of statistics. He gave the example of adding price calculations for owner-occupied housing into HICP. How can we be transparent about this in our communications?

Inna Šteinbuka stated the need to care about how we present interpretations of statistics. Statistics and their commentary should be impartial. Statisticians' independence should be communicated better, as peer reviews and the application of best practices are already contributing to trust. For owner-occupied housing, better data should be ready from end-2009 onwards, provided the decisions/ agreements are in place.

Enrico Giovannini stressed the importance of public trust in statistics. Statisticians may also help the public to understand what is going on in their lives by providing data and by offering a platform for discussion, like the OECD *Wikigender*, which is not only about gender statistics.

Both **Evan Davis** and **Patrick Lane** found it hard to accept that the price changes of owner-occupied housing as an important component are still not included in the HICP.

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1   Social networks are an immense source of marketing information.

Evan Davis said it was a statistician's job to explain, be open-minded about statistical practices and not be too defensive about criticism. But you need trust first; if people trust you they are more likely to believe your statistics. Tell the public what you do, why you do it (for example, imputation methods for owner-occupied housing) and why you think it is a good idea to do it that way. At the same time, an analysis of all the disadvantages should be presented and an overview of what the consequences would be if you did it differently. All of this helps acceptance by the public. In explaining statistics, make full use of your knowledge and authority and publish occasional papers on difficult measurement issues. For example, on prices, publish an occasional study on specific indices, rather than a regular publication.

Patrick Lane also stressed the importance of trust. Statistics are never perfect, but a lot can be achieved given sufficient flexibility. Trust does matter. **Patrick Lane** found it hard to accept that a substantial part of HICP, namely owner-occupied housing, is excluded from HICP, because it damages credibility. Even with all the difficulties of imputation, owner-occupied housing prices have to be included and the difficulties must be explained.

Steven Keuning concluded by saying that the truth as it is perceived tends to become more democratised. Statisticians would like to be part of the truth.

CONCLUDING REMARKS

JOSÉ MANUEL GONZÁLEZ-PÁRAMO

Ladies and gentlemen, [1]

It is a pleasure for me to have the opportunity to address such distinguished audience on the occasion of another stimulating and forward-looking ECB Conference on Statistics. As the Executive Board Member in charge of the Directorate General Statistics, I would like to begin by thanking all the participants in this Conference for their valuable contributions. At this stage, it is too early to provide a balanced summary of all the thoughtful written and oral contributions made at this Conference. Nevertheless, let me draw from the contributions that we have heard over the last two days in order to propose some elements of a strategic vision for statistics aiming to master the challenges for the next ten years.

I would like to highlight three major developments, which I believe to be fundamental for our medium to long-term strategy for statistics.

1. The first is *globalisation*, the term used to describe the growing interdependence of economies via trade, production and financial market linkages over recent decades. Globalisation is a subject of great interest for monetary policy-makers, the reason for such interest being that it may – via a number of channels – affect key elements of the monetary policy framework, such as the inflation formation process and the monetary transmission mechanism, [2] and ultimately change the way central banks conduct monetary policy. [3]

It has been even argued that globalisation may undermine the ability of national central banks to control the dynamics of domestic inflation, and ultimately lead central bankers to relinquish their autonomy in favour of some mechanism of coordination among national monetary policies. While these concerns may appear rather alarmist, [4] our knowledge of the different channels through which globalisation is changing our economies, and thereby potentially reducing the validity of the tools that we use to model their behaviour, is still rather limited.

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1 I thank Werner Bier for valuable contributions to this speech.
2 See Ciccarelli, M. and Mojon, B. (2005), "Global inflation", European Central Bank Working Paper No. 537.
3 See González-Páramo, J.M. (2007) "Globalisation and monetary policy", Lecture at Suomen Pankki, Helsinski, 15 March (http://www.ecb.europa.eu/press/key/date/2007/html/sp070316.en.html).
4 See Woodford, M. (2007) "Globalization and monetary control", NBER Working Paper No. 13329. The author analyses in detail the implications of globalisation in financial, final goods and factor markets for monetary policy in the context of a new Keynesian model. He concludes that, even under the assumption of significantly more complete global integration than experienced in practice, national central bankers are unlikely to lose the ability to control the dynamics of inflation.

In addition, the events in credit and money markets since last August have reminded us that in a globalised world, disturbances may be transmitted more rapidly and through different channels than in the past. Indeed, from its origin in the relatively small sub-prime segment of the US market for mortgage loans to its somewhat unusual dynamics of transmission (for instance, the fact that the current turmoil initially manifested itself in the difficulty for banks, mainly European, to obtain short-term liquidity in the US dollar market), a number of factors have set this episode of turmoil apart from previous experiences.

The difficulty to (a) rely on standard analytical tools – based on regularities drawn from the historical experience of a less globalised world – and on conventional information sets, together with (b) the need to analyse and understand economic and financial developments in real time, combine to produce an ever increasing demand for new, more detailed and timely statistics.

The impact of globalisation on statistics was already the subject of our third ECB Conference on statistics in 2006 and the events of the last months prove that globalisation will remain on our agendas for the foreseeable time.

2. The second major factor of relevance for our medium to long-term strategy is the *IT revolution*. Let me recall that this factor is not entirely disjointed from globalisation. Indeed, one of the main reasons why globalisation has accelerated over the last two decades is the boom in the use of information and communication technology, with the ensuing reduction in the cost of transporting goods, services and information across the globe.

The IT revolution has had a dramatic effect on the work of statisticians. Not so long ago, statisticians worked mainly with paper and pencil. Today, modern statistics are unthinkable without strong IT support for the collection, compilation and dissemination of statistics. Statistical procedures that today are considered as either technically impossible or too costly to pursue, may tomorrow be widely implemented as best practices.

3. The third factor of strategic importance is the existence of a *constraint* given by the response burden of reporting agents. The demand for statistics is steadily increasing, and the balance between the benefits and costs of new and existing statistics is not the same across the various economic agents. While statistics are a public good, they frequently represent a private cost as well as a public one.

Unfortunately, we cannot think of reaching one day a balanced steady state for statistical development, in which the requirements of the users are fully satisfied at a relatively acceptable cost in terms of the response burden of the reporting agents. Nevertheless, in the medium to long term we should aim to optimise both the production function of transforming collected data into statistical output and the related cost of producing it.

I will structure my further reflections along the four themes discussed during the Conference. In the first section, I will summarise the main current and

future statistical requirements of institutional users of monetary, economic and financial statistics. In the second section, I will address the response of the European System of Central Banks (ESCB) and, in particular, the Eurosystem, to forthcoming challenges in the area of statistics. The third section refers to the necessary and fruitful cooperation of the statistical community at the European level and worldwide. The fourth section deals with the natural challenge faced by statisticians in open and democratic societies, namely how to explain to both professional users and the public at large which statistics match their needs and how to interpret them. Finally, I will conclude by outlining elements of a strategic vision for statistics.

SESSION I: THE ROLE OF HARMONISED MONETARY, FINANCIAL AND ECONOMIC STATISTICS IN MONETARY AND OTHER ECONOMIC POLICIES

Sound monetary and economic policies require the regular monitoring and in-depth analysis of a broad set of timely and high-quality statistics. Allan Meltzer often recalls a very interesting anecdote involving Irving Fisher, the great American economist and statistician, and Eugene Meyer, the Chairman of the Board of Governors of the Federal Reserve in the early 1930s.[5]

In 1931, Fisher – alarmed by the contraction in money growth – called on Meyer and pointed out that demand deposits were declining sharply, signalling that monetary policy was inadequate to address the severe economic contraction. Apparently, Chairman Meyer's reply was to enquire what demand deposits were, but, even after listening to Fisher's explanation, failed to show much interest.

Some of the members of the audience may be thinking that the choice of an anecdote reminding us that central bankers ignore monetary developments at their own risk is not too surprising in this house. In fact, this is certainly a main moral of this story, but this anecdote also points out to another important fact, namely that sound policies require good analyses, and - in turn - good analyses rely on high quality statistics.

At the ECB, the use of statistics for our analysis and communication is pervasive. One just needs to listen to the introductory statement of the ECB President at the monthly press conference following the Governing Council meeting or read the ECB Monthly Bulletin to immediately realise how intensively we rely on statistical data. Indeed, statistical data is a key input into the information set available for a number of important political decisions, from the regular setting of monetary policy to the assessment of the degree of convergence of countries wishing to join the euro area.

It should be noted that, in this respect, there is nothing special about the ECB relative to other central banks. Indeed, the use of statistics is equally important

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5   Allan H. Meltzer (2000), "Lessons from the Early History of the Federal Reserve", Presidential Address to International Atlantic Economic Society, Munich March 17.

and pervasive for other major central banks. More generally, statistics are of crucial interest to a variety of economic agents in our economies. Financial market participants, multinational corporations and citizens at large, are increasingly interested in improving their access to – and their understanding of – the existing statistics.

Globalisation creates additional demand for new and more comprehensive statistics. For instance, in a globalised world the need for monetary and economic analyses in real time requires comparable key macroeconomic statistics across major economic areas, as well as a few worldwide aggregates with appropriate regional breakdowns. Let me just give you an illustration of the potential uses of such aggregates.

As I hinted at earlier, it has been argued that globalisation has affected the inflation formation process, specifically by increasing the sensitivity of domestic price developments to foreign cyclical conditions (the so-called "global output gap hypothesis").[6] This proposition has been accompanied by the recommendation –popularised by The Economist and other important media – that central banks aiming to maintain price stability at home should pay close attention to developments in global output gaps.[7]

However, the empirical evidence on this hypothesis is fairly mixed, possibly reflecting to some extent the uncertainty surrounding the data on global output.[8] And let me stress that here the uncertainty does not only relate to the problems of estimating the output gap – an issue on which I'm sure my colleague at the ECB's Governing Council Athanasios Orphanides would have quite a few words to say – but, even more fundamentally, to the measure of world output itself.[9]

A pre-requirement to assess this hypothesis more thoroughly and, more generally, to assess how global macroeconomic conditions affect domestic inflation, would be to have quarterly world GDP statistics professionally compiled by the statistical department of an international organisation with a broad geographical membership. In particular, the priority would be to have a quarterly world GDP indicator at constant prices, seasonally adjusted and broken down by investment,

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6   See for instance, Fisher, R.W. (2005), "Globalization and monetary policy", Warren and Anita Manshel lecture in American foreign policy, Harvard University, 3 November.

7   See The Economist (2005), "A foreign affair", Economics Focus, 20 October, and Business Week (2006), "A narrow window on the world", 5 June.

8   For instance, evidence in support of this hypothesis for sixteen industrialised countries and the euro area has been recently provided by Borio, C. and A. Filardo (2007), "Globalisation and inflation: New cross-country evidence on the global determinants of domestic inflation", BIS Working Papers No. 227. However, their results for a number of countries have been challenged by Ihrig, J., Kamin, S., Lindner, D. and J. Marquez (2007), "Some simple tests of the globalization and inflation hypothesis", Board of Governors of the Federal Reserve System, International Finance Discussion Paper No. 891. Similarly, Calza, A. (2008), "Globalisation, domestic inflation and global output gaps: Evidence from the euro area", ECB Working Paper No. 890, finds limited evidence in support of the "global output gap hypothesis" for the euro area.

9   See Wynne, M.A. and G.R. Solomon, "Obstacles to measuring output gaps", Economic Letter - Insights from the Federal Reserve Bank of Dallas 2(3), March, for a discussion of the various challenges implied by the calculation of global production capacity and slack.

private and government consumption (as world exports equal world imports). With a timeliness of 60 days, coverage would account for about 80% of world GDP (both in current exchange rates and in purchasing power parities), which typically allows for the compilation of sufficiently reliable growth rate estimates at a national level.

Another area in which there is still room for progress regards the degree of comparability of the Principal Economic Indicators (PEIs) between the European Union and the United States.

As the Principal European Economic Indicators (PEEIs) were selected with reference to the US PEIs, there is a relatively high degree of similarity between the two indicator sets, but their comparability is not perfect. An earlier study by the ECB showed that, in many cases, methodological differences between the European and the corresponding US PEIs can be adjusted for, ultimately enabling the compilation of comparable macroeconomic statistics for both economic areas. [10]

In this context, "comparability" means the application of the same statistical measurement concept. It does not necessarily imply that the comparative analysis of the two economic developments is straightforward, because the institutional framework in the countries may differ significantly. The comparison of harmonised household saving rates between countries with predominantly pay-as-you-go pension schemes and those with predominantly funded schemes is a case in point. Harmonisation in statistics eliminates measurement biases, but is not a substitute for thorough economic analysis.

The PEEIs are a success story for Eurostat and the national statistical institutes. Many of the ambitious targets set for the European aggregates about half a decade ago have now been achieved. The ECOFIN Council has invited Eurostat and the ECB to review the scope, timeliness and quality of the PEEIs in the light of the results achieved, the constraints encountered and the evolving needs of users for economic and monetary policy purposes. As the work has only just started, I will confine myself to a few preliminary considerations:

a) The scope of the PEEIs is viewed positively and indeed reflects the main ECB user requirements.

b) Besides a few fine-tuning measures, it would be desirable to add a section on housing indicators, in particular, residential property prices.

c) While the timeliness of the PEEIs has been continuously improved upon in recent years, quick wins are still possible by better tuning the timeliness of certain indicators to the timetable of European policy-making processes. Moreover, the availability and timeliness of certain indicators is still insufficient. This applies mainly to statistics on services and the labour market. It also applies to the very valuable integrated euro area accounts,

10 Article "Comparability of statistics for the euro area, the United States and Japan", ECB Monthly Bulletin April 2005, p. 61ff.

released jointly by Eurostat and the ECB, which should become available within 90 days following the reference quarter in order to enhance their use in real time.

d) Finally, I would welcome a serious study on the possibility of releasing a GDP flash estimate within 30 days following the reference quarter.

I would like to underline that timeliness is not the only quality criterion for statistics, but yet it is crucial for real-time analyses and a forward-looking monetary policy. Timeliness has, of course, to be balanced against the reliability of the first release, including the capacity to identify the inevitable turning points in the business cycle. This implies that also "flash" estimates should be based on a broad set of collected data, as opposed to forecasts. Moreover, the economic analyses supporting monetary policy are preferably based on a broad set of statistics which are internally consistent and show a sufficient history of at least two business cycles. I trust that the review of the PEEIs will be carried out in the same forward-looking manner as when the PEEIs were established in the first place.

SESSION 2: FUTURE DIRECTIONS FOR THE COLLECTION AND COMPILATION OF STATISTICS

Earlier contributions at this Conference have already referred to the fact that, in September 2006, the Governing Council of the ECB set up a Eurosystem Task Force to undertake an in-depth analysis of the function of statistics, with an initial focus on Eurosystem-related statistical activities. Its mandate was to identify the potential for exploiting synergies in data collection, compilation and dissemination, and to analyse medium to long-term strategic issues. In November 2007, based on the work undertaken by this Task Force, the Governing Council endorsed a strategic long-term vision for Eurosystem statistics with the following essential features:

– *Input objective*: The Eurosystem statistical function aims to provide a reporting system where reporting institutions have to supply any information only once and where the reporting burden is minimised.

– *Throughput objective*: The Eurosystem statistical function aims to be a production network for the highly efficient and harmonised compilation of both Eurosystem and national statistics, reaping economies of scale and using state-of-the-art techniques, while respecting the specific set-up of the Eurosystem.

– *Output objective*: The Eurosystem statistical function strives to providing euro area statistics that are fit for use in the Eurosystem's decision-making, given the allocation of responsibilities for European statistics between the ESCB and the European Statistical System (as defined in the Treaty, secondary legislation and the Memorandum of Understanding on economic and financial statistics between the European Commission's statistical office Eurostat and the ECB).

The Governing Council also requested to thoroughly investigate the feasibility of a move towards the consolidated or pooled collection and production of various types of Eurosystem statistics in a network, starting with new or substantially revised statistics and with due consideration to the fact that different types of statistics may require different approaches. In addition, nineteen more specific recommendations towards the implementation of the strategic long-term vision were decided. The President already referred to them at the beginning of this Conference.

While the practical implications of the Governing Council's decisions on the day-to-day operations of the Eurosystem statistical function will need to be elaborated gradually over time, I would like to illustrate the direction of developments in this regard by way of example. The Centralised Securities Database (CSDB), or more accurately, the common securities database, is a reference micro-database for individual securities currently under development by the ESCB. It contains several million securities, at least those issued by residents of the European Union and those most likely held by European Union residents. The CSDB will be accompanied by security-by-security data collection on the holdings of securities set up by the national central banks (NCBs). The ECB and all NCBs share the task of guaranteeing the quality of the micro-information contained in the CSDB for statistical purposes following well-defined procedures. With regard to securities issuance, the CSDB will become the single source for all European and national securities statistics compiled by the ECB and the NCBs. There will be full consistency between European and national statistics, in terms of basic sources, statistical concepts and detailed methods. For instance, the definition of "securities outstanding at market value" or "securities outstanding at nominal value" will be exactly the same across the European Union. The euro area statistics will not depend on the availability of intermediate national aggregates. Moreover, as securities issuance statistics are part of a full range of various other statistics, such as monetary and financial statistics, balance of payments statistics, financial accounts and government finance statistics, the CSDB will also significantly enhance consistency among these statistics. This applies as well and with a higher degree of complexity to securities-holding information. All of these statistical enhancements require an even closer collaboration within the ESCB and, in particular, the Eurosystem. The ESCB Statistics Committee is charged with this pioneering task.

Given the wide range of securities included in the CSDB, this project has attracted attention at the international level, including that of the G8. However, first and foremost, it is important to demonstrate that the CSDB is fit for use in the production of euro area statistics, where balance of payments statistics, including the international investment positions, and investment funds statistics have been identified as the highest priorities. In parallel, and in order to allow comparable and aggregated securities statistics on a global level in the future, the ECB also cooperates with the Bank for International Settlements (BIS) and the International Monetary Fund (IMF) by participating in the Working Group on Securities Databases towards the development of a handbook on securities statistics, which will focus initially on debt securities.

In general, applying standard requirements to statistics may indeed be best dealt with by first agreeing on output tables, enshrining the tables in a legal act and afterwards collecting the related input data from reporting agents. However, this standard procedure typically does not cope with significant financial and structural innovations or with crisis situations. If necessary, the available set of statistics must be promptly and regularly updated in the face of rapid financial innovation and broader structural change. Simultaneously, there is a need for sufficiently long time series without statistical breaks. This points to the opportunity of a more frequent and intensive recourse to micro-databases.

Micro-information, such as information on individual securities, individual loans or individual statistical units, such as household income and wealth surveys, may be aggregated in multiple ways to statistical outputs depending on the questions under consideration. This allows both a continuity of the standard statistics and a timely statistical response to new and unexpected policy issues. The use of micro-databases for statistical purposes is also becoming increasingly feasible thanks to the IT revolution. At the same time, the effectiveness of micro-databases much depends on the quality of the micro-information available and their accessibility to statisticians.

SESSION 3: FUTURE COORDINATION AND COLLABORATION STRATEGIES IN THE AREA OF STATISTICS

One of the assets of the statistical community is its close cooperation at the European level and worldwide. This significantly facilitates agreements on harmonised statistical concepts and methods, and accelerates the distribution of knowledge about best statistical practices. In a few cases, it even allows for the joint compilation and dissemination of key macroeconomic statistics by two or more statistical authorities.

The key partners of the ECB and the NCBs in the area of statistics are Eurostat and the national statistical institutes. The main institutional framework for European cooperation is enshrined in the Treaty establishing the European Community and the Statute of the ESCB and of the ECB. In addition to this primary legislation, two EU Council Regulations, the first on the statistics of the European Statistical System and the second on the statistics of the ESCB, govern cooperation in further detail. Both Regulations are currently under review and it is the firm intention of the ECB to further intensify cooperation, in particular, with regard to the exchange of confidential information. This is demonstrated in the published ECB opinion on the proposed Regulation on European statistics.

Beyond the institutional framework, there are very close operational links between Eurostat and the ECB, which culminate in the joint preparation of the quarterly press releases on balance of payments statistics and the integrated euro area accounts. The practical modalities of the cooperation in the different fields of economic and financial statistics and the respective responsibilities are described in a Memorandum of Understanding with Eurostat, which has been recently complemented by a service level agreement. At the ECB we attach high

importance to the continuation and the enhancement of our excellent working relationship with Eurostat.

Any successful cooperation at the European level in the area of economic and financial statistics must also encompass the NCBs and the national statistical institutes. Cooperation has been successfully pursued for over one and a half decades in the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB), which has delivered remarkable results and built a high credibility despite its less than accessible name. Like the cooperation between Eurostat and the ECB, there are a variety of successful and welcome cooperation agreements between national statistical institutes and NCBs. These agreements strengthen the effective and efficient collection, compilation and dissemination of high quality European and national statistics.

There are two further influential groups in the area of statistics at the European level. First, the Sub-committee on Statistics of the Economic and Financial Committee (EFC) discusses the annual EFC Status Report on Information Requirements in EMU prepared by Eurostat and the Directorate General Statistics. This report is submitted via the EFC to the ECOFIN Council, which publishes it together with the Council conclusions that pave the way for substantial initiatives in the area of economic statistics. Second, the Council Working Party on Statistics deliberates on the details of proposed Community Regulations under the responsibility of the European Parliament and the Council. The ECB is grateful to the respective EU Presidencies for inviting it to the meetings of the Council Working Party on Statistics, when legal acts in the ECB's field of competence are on the agenda.

The ECB is also represented in global fora dealing with statistics. It is a member of the inter-agency Committee for the Coordination of Statistical Activities (CCSA) and is among the seven sponsors of the successful Statistical Data and Metadata eXchange (SDMX) initiative. The ECB contributes to the development and coordination of external statistics in the IMF Committee on Balance of Payments Statistics. It provides input into a range of monetary and financial statistics through its membership of the BIS Working Groups, and the Working Groups and Task Forces of the IMF. Moreover, together with Eurostat, the ECB represents the European Community in the OECD Statistics Committee and Working Groups, and in the United Nations Statistical Commission. The ECB has also contributed significantly to the recent review of the System of National Accounts, for instance concerning the most appropriate recording of all different pensions in these accounts.

Notwithstanding the above coordination activities, the current coordination arrangements for official financial statistics, including the contribution of central banks, continue to be somewhat dispersed at the worldwide level. For example, this makes it difficult to draw common statistical conclusions about the impact of the ongoing financial turmoil at a global level. Therefore, I very much support the initiative of the BIS, the ECB and the IMF, inter alia, to establish an international network on financial statistics. Indeed, in a globalised world, the governance structure for global financial statistics needs to be strengthened.

The ECB operates in a special communication environment. In principle, it has to address as a minimum the 322 million citizens in the euro area, if not the almost 500 million citizens in the European Union with its 23 official languages. There are no euro area-wide media, but over a thousand individual media in the euro area as potential counterparts. In this environment, the Internet is an outstanding communication medium for statistics. Its importance is rapidly increasing and, for most organisations, the website represents their "first face" to the public. Even more importantly, the Internet is also the primary source for journalists in their research and reporting. Moreover, it permits interactive access to large, well-structured databases, such as the ECB Statistical Data Warehouse (SDW).

Let me illustrate the direction of our efforts in the area of statistical communication by way of example. As explained earlier at this Conference, the ECB has, together with Eurostat, examined a medium to long-term communication strategy for the Harmonised Index of Consumer Prices (HICP). As a first step, a new dedicated section of the ECB website devoted to inflation measurement is under development. It will include tables with detailed breakdowns of the HICP for the euro area and the euro area countries as produced by Eurostat and the national statistical institutes. Main aspects of the HICP for the euro area and the individual countries will also be presented in dynamic graphs supported by the most recent IT visualisation tools. The graphical presentation will make it easier for the user to familiarise themselves with the facts and figures. Links to Eurostat's website will provide easy access to further and more detailed information.

While statistical communication focuses mainly on facts and figures, it must also correct false interpretations of statistics, thereby contributing to economic and financial literacy. A prominent example is the continuous comparison between, on the one hand, the HICP inflation rate as measured by Eurostat and the national statistical institutes in line with the agreed methodology enshrined in European legislation and, on the other, qualitative or quantitative opinion surveys on inflation. The HICP and the opinion surveys on inflation measure different phenomena, or as some may argue different aspects of the same phenomenon. In both cases, a direct comparison is not legitimate from a statistical point of view and is likely to suggest false interpretations

Just to state the obvious, once certain inflation perceptions persist in the public's opinion they will not be corrected by technical explanations of statistical methodologies. A credible track record of reliable official statistics – and this applies beyond the measurement of inflation – is of utmost importance in this situation. Statistical communication requires a continuous effort and is part of a long-term strategy for statistics.

CONCLUSION: ELEMENTS OF A STRATEGIC VISION FOR STATISTICS FOR THE NEXT TEN YEARS

The Governing Council of the ECB has decided on a strategic long-term vision for the Eurosystem statistical function. While this strategic vision is designed around the Eurosystem governance structure, it entails elements of a strategic vision for statistics that is applicable more generally. This is all the more clear if we consider that the most important challenges that we face are common to all statistical offices: globalisation, the IT revolution and the constraint given by the statistical response burden of reporting agents.

The recent financial turmoil highlights the impact of globalisation on the various areas of competence of central banks. It also illustrates the trade-off between the statistical response burden of reporting agents and a lack of consistent information to analyse the current economic and financial situation. In particular, there is a lack of sufficiently harmonised statistics to accurately measure the allocation of credit risk within the economy and the impact of cross-sector and cross-border credit risk transfers. Another issue is the recording of contingent credit exposures.

The IT revolution will enable the statistical community to carry out the current procedures for collecting, compiling and disseminating statistics more efficiently. However, it is much more important to reflect on how the IT revolution can be used to introduce new and more effective procedures. Micro-databases are promising in this respect. They may also mitigate the constraints imposed by the statistical response burden of the reporting agents. Moreover, micro-databases will enable statistics to be adjusted more flexibly to financial and other structural innovations, in many cases, almost in real time.

It is equally important to bear in mind that the more important statistics are for policy purposes, the greater the need for statistical communication that explains facts and figures in real time to professional users and the public at large.

The Nobel Laureate George Stigler once said:

"The public has chosen to speak and vote on economic problems, so the only open question is how intelligently it speaks and votes" (George Stigler, 1970)

Effective statistical communication plays an essential role in ensuring that this open question is answered satisfactorily and to the benefit of the entire society.

The Fourth ECB Conference on Statistics is coming to an end. I would like to thank you all very much for your participation and for your attention. I trust that the contributions and discussions will inspire further reflection on a strategic vision for statistics for the next ten years and possibly beyond.

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