

Distr.  
GENERAL

CES/AC.68/2004/8  
8 April 2004

ENGLISH ONLY

**STATISTICAL COMMISSION and  
ECONOMIC COMMISSION FOR EUROPE**

**ORGANISATION FOR ECONOMIC  
CO-OPERATION AND  
DEVELOPMENT (OECD)**

**CONFERENCE OF EUROPEAN  
STATISTICIANS**

**COMMISSION OF THE EUROPEAN  
COMMUNITIES (EUROSTAT)**

Joint UNECE/Eurostat/OECD Meeting on National Accounts  
(Geneva, 28-30 April 2004)

## **PROCESS TABLES TO ANALYSE NATIONAL ACCOUNTS PRODUCTION IN THE EU COUNTRIES**

Paper submitted by Eurostat

### **INTRODUCTION**

1. Gross National Income<sup>1</sup> is a key determinant of contributions by EU Member States to the EU budget. The European Court of Auditors in its “Annual Report 1995” addressed various questions relating to the quality of GNI data. In particular, it had come up with the proposal to measure the accuracy of GNI figures by means of confidence intervals; the Court thought such probabilistic intervals a useful measurement tool to support the GNI Committee in its efforts to improve the reliability and comparability of GNI data.

2. The UK (ONS) and Italy (ISTAT) experimented with various ways to ‘add up’ the variances of basic statistics to obtain a measure of the accuracy of GDP. However the results did not seem to be offering methods of general applicability.

3. In October 1999 the EU’s GNI Committee set up a Task Force to review all relevant aspects of accuracy assessment in the basic data sources, examine the feasibility of accuracy assessment in National Accounts (NA), and make recommendations for a possible extension of the reporting requirements for the GNI data for the budget calculations.

4. Accuracy, one of the dimensions of the internationally agreed definition of quality, is

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<sup>1</sup> In fact GNP according to ESA79/SNA68 was used until 2001 for the financial contributions to the EU budget, but for simplicity the symbol GNI is used throughout this paper.

usually defined as the gap between the published estimate and the “true” value of the variable. However, since no independent estimate of the “true” value is available, it follows that its accuracy is also unknowable.

5. All of the data sources have different degrees of accuracy. The errors can be divided into potentially knowable sampling errors and probably unknowable non-sampling errors. Sampling errors occur in sample survey data (that are grossed up to the target population), and are affected by the design and size of the sample. Non-sampling errors are in all types of data sources and include coverage errors, measurement errors, processing errors, non-response errors, and modelling errors.

6. All of these types of errors could have an impact on the accuracy of the NA estimates. But whereas sampling errors can (in principle) be calculated by a variety of mathematical models, it is very difficult and costly to systematically calculate the non-sampling errors.

7. Adding up the accuracy of estimates in NA is rendered even more difficult because many different data sources, such as statistical surveys, administrative data and extrapolations and models, interact in a complex process, so that even the aggregate sampling errors cannot be calculated.

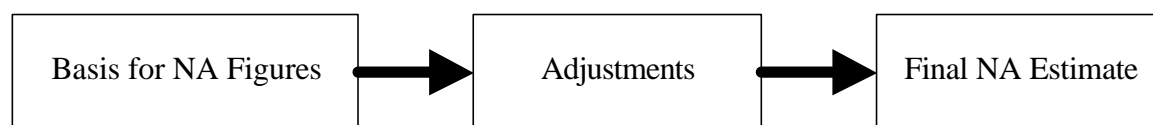
8. Consequently, the Task Force realised the impossibility of calculating objective degrees of error in national accounts, and proposed an alternative: the development of a Process Table that would enable a careful description of the specific steps in the GNI compilation process for each country.

9. As first step in its development, a pilot test of the Process Table was carried out by eight EU countries. The results of this pilot are the subject of the present document.

## **THE STRUCTURE OF THE PROCESS TABLE**

10. The compilation of the National Accounts is a very complex process, which draws together many different types of data and balances them against one another to produce an estimate of Gross Domestic Product (GDP) using three different measures: production, expenditure and income. This estimate of GDP is then transformed into an estimate of Gross National Income.

11. The structure of the GNI Process Table follows the NA compilation process. It starts with different types of data sources as input. The processing includes a series of adjustments to the basic data to make them consistent with each other and bring them in line with the National Accounts concepts and methods (see figure 1).

**Figure 1:** Structure of the National Accounts compilation process

12. The rows of the table show first the output measure of GDP broken down by industry, then in a second block the expenditure measure by main components (household consumption, capital formation etc), and finally the income components. In total this makes some 100 rows.

13. The columns of the table start with the Basis for NA figures identifying different type of data sources, such as:

- *Surveys and Censuses* data are the results of statistical inquiries (surveys or censuses) after grossing up to the target population in the case of sampling;
- *Administrative data* are records of government accounts, banking systems, and so forth;
- *Extrapolation and Model* data are estimates obtained through extrapolations of benchmark year figures and model estimates like imputed rents for owner-occupied housing, and consumption of fixed capital. Estimates made in a commodity flow context (e.g. ratios to figures of total supply to derive estimates of different use categories) are also classified here.

14. The adjustments, which aim to improve the source data, are grouped as a series of different types of adjustments:

- *Data Validation Adjustments* are made to correct biases, errors and discontinuities in the data sources;
- *Conceptual Adjustments* are made to bring the NA figures in line with the European System of Accounts 1995 (ESA95) definitions;
- *Explicit Exhaustiveness Adjustments* are made to cover hidden activities, such as undeclared work, VAT fraud, etc.
- *Balancing Adjustments* are made to secure a balance between Industry Inputs and Outputs, and between Supply and Demand for products (see Input-Output Supply and Use Tables). Balancing adjustments may result from an optimisation method under linear constraints in which the statistically optimal adjustments depend on the accuracy of the input variables.

15. Finally this table with GDP components in rows and the different source data and adjustments in the columns exists in different versions (or layers). The first shows the actual data, the second gives references to relevant paragraphs of the country's GNI inventory<sup>2</sup>, and the third provides comments on the most important features of the GNI compilation process.

## JOINT ANALYSES OF GNI PROCESS TABLES AND ESA95 INVENTORIES

16. The Process Table pilot test has been completed by 8 EU Member States. Germany provided data for the table in the Production and the Expenditure measures, whereas Italy provided the data in the Production measure only. Since this is a pilot test, the results will not be fully comparable yet across countries. In particular, there may be differences in the way countries allocate sources or adjustments to the various columns. Nevertheless, Eurostat thinks that it is

<sup>2</sup> GNI Inventory describes each country's methods used in compilation of National Accounts.

possible to analyse the pilot tables to increase the understanding of the national accounts systems of the countries. The results of analysing the GNI Process Tables pilot test are described in this section.

**Table 1:** Summary of the three GDP measures, percentage contributions to final GDP estimates by type of source data and adjustments in current prices

<b>Production Measure</b>										
	Year of data	<b>Basis for NA figures</b>					<b>Adjustments</b>			
		Surveys & Censuses	Adm. Data	Extrap.	Other	Total	Data valid.	Concept.	Explicit Exhaustiv.	Balancing
Austria	1998	58	16	9	9	92	-1.1	3.4	5.9	-
Belgium	2000	2	80	17	1	100	0.1	-3.7	4.0	-
Germany	1995	26	57	10	2	95	-	-1.4	5.7	0.7
Greece	1995	28	22	45	-	95	-	-	-	5.3
Italy	1997	34	27	-3	24	83	1.6	0.4	13.4	1.9
Netherlands	1999	59	22	11	6	97	0.4	1.8	0.7	-0.4
Sweden	2001	68	1	26	1	96	-0.2	2.6	0.9	0.4
UK	2000	67	22	10	-	99	-3.1	3.4	1.4	-0.4

<b>Expenditure Measure</b>										
	Year of data	<b>Basis for NA figures</b>					<b>Adjustments</b>			
		Surveys & Censuses	Adm. Data	Extrap.	Other	Total	Data valid.	Concept.	Explicit Exhaustiv.	Balancing
Austria	1998	32	17	37	5	91	-	3.3	5.8	-
Belgium	2000	34	38	27	7	106	-2.2	-2.9	-	-0.5
Germany	1995	44	32	15	8	99	-	-1.6	2.5	-0.2
Greece	1998	-11	21	86	4	100	-	-	-0.4	0.5
Netherlands	1999	49	25	8	17	99	0.4	0.9	-	-0.2
Sweden	2001	57	6	37	0	100	0.4	-	-	-
UK	2000	59	23	17	-	98	0.3	0.2	0.4	0.9

<b>Income Measure</b>										
	Year of data	<b>Basis for NA figures</b>					<b>Adjustments</b>			
		Surveys & Censuses	Adm. Data	Extrap.	Other	Total	Data valid.	Concept.	Explicit Exhaustiv.	Balancing
Austria	1998	-	64	-	-	64	-	-	4.4	31.3
Belgium	2000	1	61	1	-	62	-	1.1	0.4	36.5
Greece	1995	10	20	10	-	40	-	-	-	59.8
Netherlands	1999	37	37	2	-	77	2.5	-16.4	-	37.3
Sweden	2001	28	40	1	-	69	0.2	-	0.6	29.9
UK	2000	54	30	13	-	97	-2.3	3.0	2.6	0.1

Production measure

17. In most of the countries, the Production measure uses Surveys and Censuses much more than do the other two measures. In total, the impact of the adjustments process was 5% of final GDP estimate or less (though this obviously varies between industries).

Data sources for National Accounts figures

18. The columns for Basis for NA figures show that over half of MSs relied strongly on Surveys and Censuses.

- In Austria, such data were obtained mainly from Monthly Business surveys, Output and Structure Survey, Quarterly Micro-Census, and combined censuses, such as: Housing and Dwellings Census, and Workplace Census.
- In the Netherlands, such data were obtained mainly from Production Statistics and Survey of Small Businesses survey.
- In Sweden, such data were obtained mainly from Structural Business Statistics.
- And in the UK, most of such were obtained from the Annual Business Inquiry (ABI).

19. In the countries above, the largest proportion of Surveys and Censuses fed into the estimates for the following industries.

<i>Surveys and Censuses</i>					
<b>Industry description</b>	<b>A17</b>	<b>AT</b>	<b>NL</b>	<b>SE</b>	<b>UK</b>
	<b>NACE</b>	<b>% GVA</b>	<b>% GVA</b>	<b>% GVA</b>	<b>% GVA</b>
Manufacture	D	20	15	22	17
Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods	G	14	14	1	13
Real estate, renting and business activities	K	11	12	14	15

20. The numbers in this table indicate the contribution to total gross value added of the economy of estimates based on surveys and censuses (before adjustments). For example: 20% of total economy gross value added in Austria is based on Surveys and Censuses for manufacturing. Note that there may be other sources used for manufacturing as well, so the total share of manufacturing in GVA may be different than 20%.

**Germany and Belgium - both relied heavily on Administrative Data**

21. **Germany** in total is shown as relying heavily (57%) on *Administrative Data* – however a different picture would emerge if output or intermediate consumption would be considered separately<sup>3</sup>.

*Administrative Data* were sourced mainly from: VAT statistical records; Federal Budget provided by the Ministry of Finance; Annual Business reports of German Railways, Lufthansa, Post Office (NACE L); various financial institutions records (NACE J) such as: Central Bank, German Factoring Association, Accounting Group of the German Stock Exchange, Central Association of the German Pawnbroking Trade, etc.

22. The largest proportions of the *Administrative Data* sources are found in the following industries.

<i>Administrative Data - Germany</i>		
<b>Industry description</b>	<b>A17 NACE</b>	<b>% of GVA</b>
Real estate, renting and business activities	K	23
Construction	F	6
Public administration and defence; compulsory social security	L	6
Transport, storage and communication	I	5
Financial intermediation	J	4

23. **Belgium** relies also heavily *Administrative Data* sourced from a centralised database of company accounts to compile its accounts for the whole corporate sector of the economy. This is supplemented by VAT and Personal Income Tax declarations, and budgetary information. The largest proportions of the *Administrative Data* sources give the basis for the following industries.

<i>Administrative Data - Belgium</i>		
<b>Industry description</b>	<b>A17 NACE</b>	<b>% of GVA</b>
Manufacture	D	19
Real estate, renting and business activities	K	12
Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods	G	11

### **Greece - relied quite strongly on Extrapolations and models**

24. In Greece, *Extrapolations and Models* used in the Production measure include models - such as the model that estimates owner-occupied dwelling services, and the Perpetual Inventory Model (PIM) that estimates the consumption of fixed capital for government output. In addition, large proportions of data were also obtained from a Commodity Flow Method, projections of previous year's Ad Hoc surveys, and various calculations based on conversions of different surveys.

25. It should be noted that the high contribution of *Extrapolations and Models* in Greece was

<sup>3</sup> For certain industries, output and intermediate consumption are mainly based on Surveys and Censuses, however only the difference, GVA, contributes to the values in these tables. Moreover, data for certain industries for output and intermediate consumption were obtained from different types of source data, e.g. intermediate consumption data were obtained from Surveys and Censuses, but output data were obtained from Administrative sources.

also due to the inclusion of *Exhaustiveness* adjustments and some proportion of Balancing adjustments, which were not possible to show separately. The following table shows the industries that made the highest contributions.

<i>Extrapolations and Models – Greece</i>		
<b>Industry description</b>	<b>A17 NACE</b>	<b>% of GVA</b>
Wholesale and retail trade	G	14
Real estate, renting, and business activities	K	11
Construction	F	6

#### Impact of the adjustments process on the final GDP estimate

26. The data for *Adjustments* made to the Basis for NA figures showed that overall their effect on the final GDP estimate was small, 5% of the final GDP estimate or less, though obviously this varies considerably between industries. The exceptions are:

27. In **Italy**, the total Adjustments applied in the Production measure had a higher effect (17.3%) on the final GDP estimate than in other MSs. This was due to a high contribution of 13.4% from the Explicit Exhaustiveness Adjustment. The largest proportions found in the following industries.

<i>Explicit Exhaustiveness Adjustments - Italy</i>		
<b>Industry description</b>	<b>A17 NACE</b>	<b>% of GVA</b>
Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods	G	4.2
Real estate, renting, and business activities	K	2.4
Hotels and restaurant	H	2.3

28. The *Explicit Exhaustiveness* adjustments were applied to cover various components of hidden economy, such as: unrecorded activities and under-reporting of output and value added by enterprises.

29. The methods used to estimate activities that are statistically invisible or concealed for economic reasons were largely based on cross-comparison of various types of statistical and administrative sources on employment. Also various other techniques were used that reconcile receipts and cost data to cover for under-reporting of business income - such as the Franz method (1985)<sup>4</sup>.

30. In **Austria**, total *Adjustments* applied in the Production measure (8.1%) were much higher than in other MSs (except Italy), mainly due to large positive *Conceptual* and *Explicit Exhaustiveness Adjustments* (see Table 1).

31. *Conceptual Adjustment* increased the *Basis for NA Figure* by 3.4% of GDP. These adjustments were made:

- to include consumption of fixed capital and imputed social contributions for non-market output;

<sup>4</sup> Which assumes that the self-employed do not derive less income from their activity than employees in the same industry.

- to deduct cost price of trade goods to ensure that output is expressed in terms of margins;
- to include purchase of own account software, artistic originals and other intangible assets.

32. The following industries shown in table below made the highest contributions to the total *Conceptual Adjustment*

<i>Conceptual Adjustments - Austria</i>		
<b>Industry description</b>	<b>A17 NACE</b>	<b>% of GVA</b>
Public administration and defence industries	L	2.2
Education	M	1.1
Transport , storage and communication	I	1.1

33. *Explicit Exhaustiveness Adjustments* increased the value of the GDP even more by 5.9%. The adjustments were made to include estimates for underreporting of production activities. These estimates were based on a 1997 research study. The following industries made the highest contributions.

<i>Explicit Exhaustiveness Adjustments - Austria</i>		
<b>Industry description</b>	<b>A17 NACE</b>	<b>% of GVA</b>
Construction	F	1.4
Hotels and restaurants	H	1.3
Real estate, renting and business activities	K	1.1
Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods	G	1.0

34. In **Belgium**, *Conceptual Adjustments* on balance decreased the Basis for NA Figure by 3.7% of GDP. About 20 adjustments were made. The following adjustments applied had a substantial impact on GDP:

- To capitalise purchased and own account software;
- To exclude excise duties to ensure that GVA is at basic price;
- To exclude value added produced abroad;
- To exclude holding gains accounted for in changes of inventories;
- To exclude own accounts production and investment in Research and Development.

35. *Explicit Exhaustiveness Adjustments* increased the value of the GDP by 4%. The adjustments were made based on the register of production units to include underground economy activities. The following industries made the highest contributions.

36. Many of the adjustments offset each other, as illustrated in the table below. It shows that the offsetting often occurred in different industries, except for Wholesale and retail trade industry.



Industry description	A17 NACE	Belgium	
		Conceptual	Exhaustiveness
		% of GVA	% of GVA
Wholesale and retail trade	G	- 1.5	0.8
Manufacture	D	- 1.5	
Construction	F		1.2
Real estate, renting and business activities	K		0.9

### Expenditure measure

37. In the Expenditure measure most of the countries also relied on Surveys and Censuses. In general, the impact of the adjustments process was modest, less than 2% of the final GDP estimate, though obviously this varies considerably between final demand components.

### Data sources for National Accounts figures

38. The column in Table 1 for Basis for NA figures shows that over half the countries rely strongly on Surveys and Censuses.

39. In **Germany**, the **Netherlands**, **Sweden** and the **UK**, the *Surveys and Censuses* data used in the Expenditure measure derived mainly from the surveys of households and investments, Structural Business Statistics, and the statistical survey of intra-EU trade.. The following components made the highest contributions.

<i>Surveys and Censuses</i>				
Components of GDP E	DE	NL	SE	UK
	% GDP	% GDP	% GDP	% GDP
Household final consumption	29	28	16	47
Gross fixed capital formation	13	14	10	10
Export of Goods and Services	21	57	37	19
Import of Goods and Services	- 19	- 51	- 31	- 19

### **Belgium - relied quite strongly on Administrative Data**

40. In **Belgium**, the *Administrative Data* were sourced mainly from the government budget, Annual Accounts of enterprises, VAT returns, and customs data for trade outside the EU. The largest proportions of the Administrative Data sources fed into the components shown below.

<i>Administrative Data - Belgium</i>	
<b>Components of GDP E</b>	<b>% of GDP</b>
General government final consumption expenditure	18
Gross fixed capital formation	14
Exports of goods	19
Imports of goods	- 19

### **Greece - relied extremely heavily on Extrapolations and models**

41. In **Greece**, *Extrapolations and Models* cover both indirect and direct estimation methods. The indirect methods estimate retail-price value of the products consumed (price and quantity), from values of goods distributed to consumption, through the Commodity Flow Method. The direct method entails extrapolating forwards benchmark data based on Household Budget surveys, retail sales, and tax statistics. The following components made the highest contributions.

<i>Extrapolations and Models - Greece</i>	
<b>Components of GDP E</b>	<b>% of GDP</b>
Household final consumption expenditure	73
Gross fixed capital formation	13

42. It should be noted that in Greece the high contribution of Extrapolations and Models (86%) is slightly exaggerated due to the effect of the negative figure for Surveys and Censuses (derived from a minus Net Export, i.e., Exports being smaller than Imports). If Surveys and Censuses data had been positive, the contribution of Extrapolation and Models would have been correspondingly smaller.

### **The Netherlands has a relatively high proportion of data derived from Other sources (16.7%).**

43. In the **Netherlands**, *Other* data used in the Expenditure measure are sourced from supply side information for household consumption and calculations based on construction statistics and the system of taxes on ownership transfer for capital formation. The following components made the highest contributions.

<i>Other Sources - Netherlands</i>	
<b>Components of GDP E</b>	<b>% of GDP</b>
Household final consumption expenditure	11
Gross fixed capital formation	6

### Impact of the adjustments process on the final GDP estimate

44. The data for *Adjustments* made to the Basis for NA figures showed that in most countries their overall effect on the final GDP estimate is modest, less than 2%. The exceptions were:

45. In **Austria**, total *Adjustments* applied in the Expenditure measure were relatively high. The high impact of 9.1% of GDP on the final estimate was due to large positive *Conceptual* and

*Explicit Exhaustiveness Adjustments* (see Table 1).

- *Conceptual Adjustment* increased the Basis for NA Figure by 3.3% of GDP, and the largest proportion of this adjustment was applied to general government (3.3% of GDP). The adjustment was made to include data on capital consumption and imputed social contribution.
- *Explicit Exhaustiveness Adjustments* increased the value of the GDP even more by 5.8%. The largest proportion of this adjustment was applied to GFCF (4.7% of GDP) to include estimates for underreporting on construction of dwellings and buildings, motor vehicle repairs, and domestic employees.

46. In **Belgium**, high *Data Validation Adjustments* decreased the final GDP estimate by 2.2. The largest proportion of this adjustment was applied to household consumption (- 1.6% of GDP).

47. *High Conceptual Adjustments* also decreased the final GDP by 2.9%. The largest *Conceptual* adjustment was applied to Changes in Inventories t (- 2.5% of GDP) to deduct holding gains resulting from price increases of raw materials and goods for resale.

48. In **Germany**, *Conceptual Adjustment* decreased the *Basis for NA Figure* by 1.6% of GDP, mainly due to adjustment to GFCF (-1.2% of GDP).

49. *Explicit Exhaustiveness Adjustments* increased the Basis for NA Figure by 2.5% of GDP. The *Explicit Exhaustiveness Adjustments* were made mainly to GFCF. The above adjustments were made based on reconciliation of the product-by-product assessment of new investment goods available with the investors accounts.

#### Income measure

50. In the Income measure, out of all the 8 countries analysed, only the UK has a fully independent income measure. This is because in the other countries the Gross Operating Surplus and Mixed Income components were derived as a residual.

#### Data sources for National Accounts figures

51. The Basis for NA figures varies widely between MSs in their reliance on the various sources. The most noticeable features were:

- In the **UK**, high proportion of *Surveys and Censuses* data was due to the Compensation of Employees component of 51% of GDP- data were obtained from randomly selected sample of income tax return declarations from Inland Revenue.
- In **Austria**, the *Administrative Data* derived from the annual PAYE statistics, Income and Financial Statistics, and Annual and Final Accounts of the government sector. The largest proportions of the *Administrative Data* sources are in Compensation of Employees (52%), Taxes (16%) and Subsidies (-3%).

#### Impact of the adjustments process on the final GDP estimate

52. As regards *Adjustments* made to the Basis for NA figures in the Income measure, for

Austria, Belgium, Greece, Netherlands, and Sweden the high figures under Balancing (between 30 and 60%), merely reflect the fact that in these countries Gross Operating Surplus and Mixed Income are derived as a residual.

### Summary

53. In the **Production measure**, most of the MSs relied on *Surveys and Censuses* much more than they did in the other two measures. The exceptions were:

- Germany and Belgium - both relied heavily on *Administrative Data*;
- Greece, which relied quite strongly on *Extrapolations and models* (far more than other MSs);
- Italy, where no type of data source pre-dominated (but *Other* accounted for far more than in other MSs).

54. The *Adjustments* made in the Production measure to the Basis for NA figures show that in most MSs their effect on the final GDP estimate was small (5% or less). The exceptions were:

- Italy (17.3%), due to its high *Exhaustiveness* adjustments;
- Austria (8.1%), due to its high *Conceptual and Exhaustiveness* adjustments.

55. In the **Expenditure measure**, most of MSs also relied on *Surveys and Censuses*. The exceptions were:

- First, Belgium, which relies quite strongly on *Administrative Data*;
- Second, Greece, which relies extremely heavily on *Extrapolations and models* (far more than other MSs).

56. The *Adjustments* made in the Expenditure measure to the Basis for NA figures showed that in most countries their effect on the final estimate was modest (less than 2%). The exceptions were:

- Austria (9.1%), due to its high *Conceptual and Exhaustiveness* adjustments;
- Belgium (-5.0%), due to its high negative *Data Validation* and *Conceptual* adjustments.

57. In the **Income measure**, of the countries analysed, only the UK has a fully independent income measure. This is because in the other MSs the Gross Operating Surplus and Mixed Income components were derived as a residual.

58. The data for Basis for NA figures showed wide variations between countries in their reliance on the various sources. The most noticeable features were:

- The UK relied strongly on *Surveys and Censuses Data* – far more than any other MSs;
- Austria relied on *Administrative data* solely and heavily;
- Netherlands and Sweden had medium reliance on *Surveys and Censuses Data* and *Administrative data*.

59. As regards *Adjustments* made to the Basis for NA figures in the Income measure, for Austria, Belgium, Greece, Netherlands, and Sweden the high figures under Balancing (between 30 and 60%), merely reflect the fact that in these countries Gross Operating Surplus and Mixed Income are derived as a residual.

## **CONCLUSIONS AND FUTURE WORK**

60. The pilot test of the GNI Process Table completed by eight EU Member States has shown the table would be a very useful supplement to the existing instruments available to the GNI Committee, in particular the (typically 400-page) inventories of sources and methods that all EU Member States must write.

61. It provides a clear overview of the differences between MS in the structures of their National Accounts compilation processes: the relative importance of different data sources and adjustments. However, the Process Table it is not intended to give, and does not give, measures of the accuracy information of the NA estimates. It was essential that analyses of the GNI process table were performed jointly with the corresponding ESA 95 Inventory, to ensure a proper interpretation of the data sources and the adjustments.

62. Eurostat is of the opinion that the GNI Process Table should be continued as an integral part of the ESA95 Inventories, which will help to a better understanding of the development of the NA processes of the MSs.

63. This paper shows that it is important to further develop the GNI process table project – by taking into account the lessons learned from this pilot test. The Process Table enhances the transparency of the process of compiling GNI, and thus fits in very well with the central aim of the GNI Committee. Eurostat will thus ask the countries that have not yet developed a process table to also undertake a pilot.

64. The compilation of GNI process tables should ideally be automatic and incorporated in the NA systems - to ensure minimal time to complete the table and to ensure that the allocation of data between columns at any given lower aggregation level is consistent with the corresponding ESA95 Inventory. This would be the only way to compile process tables at an annual frequency. The compilation of process tables should be organised such that the timeliness of the accounts is not affected.

65. Further work is required to harmonise the classification of sources and adjustments across countries. This will enhance the comparability of the process tables.

66. Lastly, it is important to stress that a careful handling of the information in the GNI process tables is needed. The size of adjustments applied to basic data should not be interpreted as an indication of the quality of NA data since this depends also on the quality and completeness of the basic data.

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