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CO-OPERATIONAL RELATIONSHIPS

REVIEW OF THE REVISED STRATEGICAL PLAN

Report of the Secretary-General

TABLE OF CONTENTS

	<u>Paragraph</u>
I INTRODUCTION	1-5
II THE SCOPE OF THE FRAMEWORK FOR INTER-SYSTEM COMPARISONS	6-9
III THE MAIN CHARACTERISTICS OF THE TWO SYSTEMS	10-20
A. SNA	10-16
B. MPS	17-20
IV COMPARISON OF CONCEPTS AND DEFINITIONS IN SNA AND MPS	21-85
A. The transactor units in the system	23-26
B. The borderline between residents and non-residents	27-28
C. Production	29-46
D. Final consumption	47-67
E. Capital formation	68-73
F. Losses	74
G. Exports and imports	75-78
H. Value added - primary incomes	79-84
I. Redistribution of income	85
V THE ELEMENTARY FLOWS IN SNA AND MPS	86-109
A. The development of the SNA matrix	87-97
B. The development of the MPS matrix	98-109
VI THE RELATIONSHIP BETWEEN CORRESPONDING AGGREGATES IN THE TWO SYSTEMS	110-129
A. Adjustments of SNA data to MPS concepts	115-120
B. Adjustments of MPS data to SNA concepts	121-129
VII PROPOSED ADJUSTMENT AND OTHER TABLES	130-137
A. Adjustment tables relating to the main aggregates in the two systems	131-135
B. Supplementary tables	134-137

TABLE OF CONTENTS (contd.)

	<u>Page</u>
ANNEX I DESCRIPTION OF THE ENTRIES IN THE SMA MATRIX	1-13
ANNEX II DESCRIPTION OF THE ENTRIES IN THE MPS MATRIX	1-12

## I. INTRODUCTION

1. At its fifteenth session the Statistical Commission requested the Secretary-General "in co-operation with the Conference of European Statisticians, to continue the study on the relationship between the SNA and the MPS in order to improve the conceptual framework and adjustment rules for purposes of linking corresponding concepts and with a view to developing common basic aggregates of special interest" (Resolution 2 (XV), paragraph 2).
2. Pursuant to this resolution the following report has been prepared and is submitted to the Commission for consideration at its sixteenth session. An earlier version of this report (E/CN.3/397 and Corr.1) was considered by the Group of Rapporteurs on SNA/MPS links of the Conference of European Statisticians at a meeting in November 1969. The present version reflects the conclusions reached by the Group of Rapporteurs and also takes account of a number of comments which were received afterwards.
3. With regard to future work on the subject the Commission may wish to recommend the publication of a methodological study consisting of a modified and extended version of the report in the light of the comments of the Commission. This extended version might include an illustration of the use of the conceptual framework, based on the conversion of data in respect of the main aggregates from one system to the other in the case of a few SNA and MPS countries. The Commission may also wish to request that data converted from one system to another be computed and issued at periodic intervals, e.g. every five years, for a number of countries and to invite countries to furnish the basic data required for this purpose.
4. In developing the framework set out in this report account has been taken of the results of earlier work on inter-system comparisons, carried out under the auspices of the Conference of European Statisticians. However, this earlier work was based on the original versions of the systems. While

many of the conclusions reached are still valid, the conceptual framework for inter-system comparisons which was developed is not sufficiently adapted to the structures of the revised SNA and MPS. The approach adopted in the present paper is based on method for inter-system comparisons developed in the report on "Progress in relating the SNA and MPS" (E/CN.3/362), which was submitted to the Commission's fifteenth session, and which is more suitable for this purpose.

5. The form of the conceptual framework, and the amount of detail to be provided in it, depends on the particular parts of the systems, and the aggregates and their sub-divisions for which inter-system comparisons are considered meaningful and desirable. This question is considered in section II of this paper. In the following sections, the conceptual framework is developed step by step. First, a general description of the system is given, and a broad comparison of their structures is made, by presenting them in the form of matrices (Section III). Then, a detailed analysis is made of the differences in the concepts and definitions in the two systems (Section IV). On the basis of the results of this analysis, the two matrices are further developed, with a view to showing separately the elements of the different entries, which are treated differently in each system (Section V). Finally, the conceptual framework is completed by the derivation of a table showing the composition of the aggregates in the two systems in terms of "elementary flows" (Section VI). In the remainder of the report proposals are made concerning the specific adjustment or other tables which countries might be recommended to compile for international purposes (Section VII).

## II. THE SCOPE OF THE FRAMEWORK FOR INTER-SYSTEM COMPARISONS

6. The purpose of the framework developed in the present paper is to provide a basis for the analysis of the relationship of corresponding concepts of SNA and MPS and for identifying the data required for adjusting SNA data to MPS concepts and vice versa. While inter-system comparisons will normally be limited to the main aggregates in the systems, and relevant

sub-divisions of these aggregates, it is desirable that the framework should cover broader areas of the systems, so as to enable the relationships between SNA and MPS aggregates and their sub-divisions to be studied within the context of the systems as a whole.

7. Inter-systems comparisons are meaningful mainly in respect of transactions, flows and aggregates relating to functions which are comparable between the countries using SNA and MPS and which are not too much affected by institutional differences. Hence, the framework developed in this report concentrates on comparisons and adjustments of flows relating to the supply and disposition of goods and services, the formation of income and selected aspects of the redistribution of income, and those parts of the systems in which these flows are recorded; and does not deal with financial flows (finance of current and capital transactions, transactions in financial assets and liabilities). This means that the framework is concerned mainly with the following accounts and tables in the two systems: in SNA - the production, consumption expenditure and capital formation accounts, and selected aspects of the income and outlay accounts; in MPS - the material balance and related tables, the first and fourth section of the financial balance (production, primary distribution and utilization of the global product and the national income) and selected parts of the second and third section of that balance (redistribution of the national income).

8. It should be recognized, that even in these areas of the systems, the concepts used are in certain respects affected by the institutional arrangements in the countries to which they are applied. Thus, for instance, in a country where research and development activities are carried out largely by government institutions, and the results of these activities are made available free of charge to enterprises, gross domestic product as defined in SNA will be higher, than in a country where these activities are carried out by independent institutions and the services rendered are paid for by enterprises. Similarly, when SNA concepts are used the allocation of final consumption expenditure between households and general government will

depend on the extent to which, and the way in which the government participates in the provision of health services. The framework for inter-system adjustments developed in the report is concerned mainly with adjustments from and into the existing concepts of the two systems and does therefore not take account of the differences in institutional arrangements mentioned above. In respect of consumption, however, provision is also made for the adjustment of each systems concepts to the concept of "total consumption of goods and services by the population", which, in principle, is not affected by the institutional arrangements in the countries concerned.

9. It should be pointed out that the present report is concerned only with the adjustment of data to common concepts, and does not deal with the question of the conversion of data into common units (currencies). The latter problems are being considered in the context of the international product and purchasing power comparison project which has been undertaken by the United Nations with the assistance of the University of Pennsylvania.

### III. THE MAIN CHARACTERISTICS OF THE TWO SYSTEMS

#### A. SNA

10. The United Nations System of National Accounts is set out in "A System of National Accounts" Series F, No.2, Rev.3, United Nations, New York (ST/STAT/SER.F/2/Rev.3).

11. The system is presented in the form of

- (a) A matrix representing the system as a whole;
- (b) A set of standard accounts which delineate the basic features of the system and are intended to furnish guidance concerning the presentation of the main series; and
- (c) A set of standard tables portraying certain limited aspects of the system, which are intended to provide guidelines in respect of the data which it should be valuable and feasible to collect, but which cannot be appropriately exhibited in the form of accounts.

The text of the system sets out in detail the concepts, definitions and classifications applying to the accounts and tables.

12. The structure and main characteristics of SNA can best be described by reference to the matrix. The full matrix is set out in table 2.17 of the document in which SNA is described. A simplified version of this full matrix is reproduced in table 1 below. It differs from the matrix in the SNA document on the following points:

- (a) With a view to showing the main conceptual differences between SNA and MPS the rows and columns for commodities have been sub-divided into (i) goods and material services; and (ii) non-material services; and the rows and column for activities of industries into (i) industries in the material sphere and (ii) industries in the non-material sphere.
- (b) The rows and columns relating to the revaluation accounts and balance sheets, which are not relevant to the inter-system comparisons considered in this report have been deleted.
- (c) Certain rows and columns which are of no direct interest for inter-system comparisons have been combined.

13. The matrix shown in table 1 provides a symbolic representation of the system. In the system itself each of the headings of rows and columns are further sub-divided in greater detail according to appropriate classifications. Each of the entries in the matrix should therefore be regarded as a sub-matrix, the number of rows and columns of which corresponds to the number of elements of the classifications applied to the heading in question. In the illustrative matrix of the complete system, which is shown in table 2.1 of SNA the nature of the sub-divisions of each heading is indicated in the form of an abbreviated classification.

14. The matrix may be viewed as a set of a large number of double-entry accounts presenting in a comprehensive and detailed fashion the different flows in an economy. Each row and its corresponding column in the fully developed matrix constitutes a separate account, the row representing the receipts or incomings of the account, and the column the expenditure or outgoings.



Table 1. SNA Matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Production	Commodities (including commodity taxes)	Material products	1		T <sub>1.3</sub>	T <sub>1.4</sub>	T <sub>1.5</sub>	T <sub>1.6</sub>	T <sub>1.7</sub>						T <sub>1.14</sub>	T <sub>1.15</sub>				T <sub>1.19</sub>	
		Non-material services	2		T <sub>2.3</sub>	T <sub>2.4</sub>	T <sub>2.5</sub>	T <sub>2.6</sub>	T <sub>2.7</sub>												T <sub>2.19</sub>
	Activities	Industries (material)	3	T <sub>3.1</sub>	T <sub>3.2</sub>																
		Industries (non-material)	4	T <sub>4.1</sub>	T <sub>4.2</sub>																
		Producers of government services	5	T <sub>5.1</sub>	T <sub>5.2</sub>					T <sub>5.7</sub>	T <sub>5.8</sub>										
		Private services: domestic services and producers of private n.p. services	6	T <sub>6.1</sub>	T <sub>6.2</sub>					T <sub>6.7</sub>		T <sub>6.9</sub>									
Consumption	Expenditure	Household goods and services	7											T <sub>7.13</sub>						T <sub>7.19</sub>	
		Government purposes	8												T <sub>8.13</sub>						
		Purposes of private n.p. bodies	9												T <sub>9.13</sub>						
	Income and Outlay	Value added	10	T <sub>10.1</sub>	T <sub>10.2</sub>	T <sub>10.3</sub>	T <sub>10.4</sub>	T <sub>10.5</sub>	T <sub>10.6</sub>											T <sub>10.18</sub>	
		Institutional sectors of origin	11								T <sub>11.10</sub>										
		Forms of income	12									T <sub>12.11</sub>		T <sub>12.13</sub>							T <sub>12.19</sub>
Capital formation	Institutional sectors of receipt	13									T <sub>13.10</sub>		T <sub>13.12</sub>								
	Increase in stocks	14																		T <sub>14.18</sub>	
	Fixed capital formation	15																		T <sub>15.18</sub>	
Capital finance	Capital transfers	16																			
	Financial assets	17																		T <sub>17.18</sub>	
	Institutional sectors	18													T <sub>18.13</sub>		T <sub>18.16</sub>	T <sub>18.17</sub>		T <sub>17.19</sub>	
Rest of the world current and capital transactions		19	T <sub>19.1</sub>	T <sub>19.2</sub>		T <sub>19.5</sub>		T <sub>19.7</sub>					T <sub>19.12</sub>				T <sub>19.16</sub>	T <sub>19.17</sub>		T <sub>19.19</sub>	

Note: The entries in this table are described in Annex I of this report

15. As can be seen from the matrix, the accounting structure of SNA provides for four main types of accounts: production accounts; consumption accounts; accumulation accounts and rest of the world accounts. Within these types, the following further categories of accounts are distinguished: within the production accounts - commodity and activity accounts; within the consumption accounts - consumption expenditure and income and outlay accounts; and within the accumulation accounts - capital formation and capital finance accounts.

16. A more detailed description of the contents of the different entries in the matrix of table 1 is given in Annex 1 of this report.

#### B. MPS

17. The CMEA System of Balances of the national economy is set out in "Basic Methodological Rules for the Compilation of the Statistical Balance of the National Economy", reproduced in document E/CN.3/396.

18. The system is presented in the form of four basic source and use tables (referred to as "balances"), and thirteen supplementary tables which provide further details on particular aspects of the basic tables. The four basic tables are:

- (a) The balance of production, consumption and accumulation of the global product (the material balance).
- (b) The balance of the production, distribution, redistribution and final utilization of the global product and of the national income (the financial balance).
- (c) The balance of manpower resources.
- (d) The indicators of national wealth.

The text of the system provides detailed definitions of the concepts used in these basic balances and the supplementary tables. With a view to describing the structure of MPS and comparing it with that of SNA it is convenient to present MPS also in matrix form. Though the system itself does not include a conceptual matrix, such a matrix can be derived without undue difficulties from the different balances and supplementary tables.<sup>1/</sup>

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<sup>1/</sup> It should be noted that some countries which use MPS type of accounting systems have drawn up matrices for the purpose of describing their national system.

Table 2. MPS matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Production	Goods and Material Services	1	<sup>t</sup> 1.2												<sup>t</sup> 1.14	<sup>t</sup> 1.15	<sup>t</sup> 1.16	<sup>t</sup> 1.17	<sup>t</sup> 1.18	<sup>t</sup> 1.19	
	Activities in mat. sphere	2	<sup>t</sup> 2.1																		
Value added	National income produced	3	<sup>t</sup> 3.2																		
	Primary distribution population	4		<sup>t</sup> 4.3																	
	Primary distribution enterprises	5		<sup>t</sup> 5.3																	
Redistribution	Transfers	6									<sup>t</sup> 6.10	<sup>t</sup> 6.11	<sup>t</sup> 6.12	<sup>t</sup> 6.13							<sup>t</sup> 6.19
	Non-material services	7									<sup>t</sup> 7.10	<sup>t</sup> 7.11	<sup>t</sup> 7.12	<sup>t</sup> 7.13							<sup>t</sup> 7.19
	Wages and salaries in non-material sphere	8										<sup>t</sup> 8.11	<sup>t</sup> 8.12								
	Transactions in financial assets	9									<sup>t</sup> 9.10	<sup>t</sup> 9.11	<sup>t</sup> 9.12	<sup>t</sup> 9.13							<sup>t</sup> 9.19
Receipts and disbursements	Units in mat. sphere	10				<sup>t</sup> 10.5	<sup>t</sup> 10.6			<sup>t</sup> 10.9											
	Units in non-mat. sphere serving the population	11					<sup>t</sup> 11.6	<sup>t</sup> 11.7		<sup>t</sup> 11.9											
	Units in non-mat. sphere serving community needs	12					<sup>t</sup> 12.6	<sup>t</sup> 12.7		<sup>t</sup> 12.9											
	Population	13			<sup>t</sup> 13.4		<sup>t</sup> 13.6		<sup>t</sup> 13.8	<sup>t</sup> 13.9											
Disposition of the material income	Personal consumption	14												<sup>t</sup> 14.13							
	Consumption of units in non-mat. sphere serving the population	15									<sup>t</sup> 15.11										
	Consumption of units in non-mat. sphere serving community needs	16											<sup>t</sup> 16.12								
	Net capital formation	17									<sup>t</sup> 17.10	<sup>t</sup> 17.11	<sup>t</sup> 17.12	<sup>t</sup> 17.13							
	Losses	18									<sup>t</sup> 18.10	<sup>t</sup> 18.11	<sup>t</sup> 18.12								
Rest of the world	19	<sup>t</sup> 19.1					<sup>t</sup> 19.6	<sup>t</sup> 19.7		<sup>t</sup> 19.9											

Note: The entries in this table are described in annex II of this report

Table 3. MFS Financial balance (condensed version)

	Production and primary distribution					Re-grouping of primary income	Balance of exports and imports	Redistribution								Final utilization			
	Global product	Mat. cost	National income					Outgoings				Incomings				Mat. cost	Non-productive consumption	Cap. formation (net)	Losses
			Total	Primary income of population	Primary income of enterprises			Transfers	Non-mat. services	Wages and salaries in non-mat. sphere	Other	Transfers	Non-mat. services	Wages and salaries in non-mat. sphere	Other				
Column of fin. balance	1	2	3	4	5	6	7	9,10 13,14, 15,18, 20	11 min. 24, 16	17	12,19	22,23, 26,27, 28,31 33	29	30	25,32	36	38	39	40
A. Material sphere	t <sub>2.1</sub>	t <sub>1.2</sub>	t <sub>3.2</sub>	t <sub>4.3</sub>	t <sub>5.3</sub>	-t <sub>4.3</sub>	-	t <sub>6.10</sub>	t <sub>7.10</sub>	-	t <sub>9.10</sub>	t <sub>10.6</sub>	-	-	t <sub>10.9</sub>	t <sub>1.2</sub>	-	t <sub>17.10</sub>	t <sub>18.10</sub>
B. Non-mat. sphere	-	-	-	-	-	-	-	t <sub>6.11,</sub> t <sub>6.12</sub>	t <sub>7.11,</sub> t <sub>7.12</sub>	t <sub>8.11,</sub> t <sub>8.12</sub>	t <sub>9.11,</sub> t <sub>9.12</sub>	t <sub>11.6,</sub> t <sub>12.6</sub>	t <sub>11.7,</sub> t <sub>12.7</sub>	-	t <sub>11.9</sub> t <sub>12.9</sub>	-	t <sub>15.11,</sub> t <sub>16.12</sub>	t <sub>17.11</sub> t <sub>17.12</sub>	t <sub>18.11</sub> t <sub>18.12</sub>
C. Population	-	-	-	-	-	t <sub>13.4</sub>	-	t <sub>6.13</sub>	t <sub>7.13</sub>	-	t <sub>9.13</sub>	t <sub>13.6</sub>	-	t <sub>13.8</sub>	t <sub>13.9</sub>	-	t <sub>14.13</sub>	t <sub>17.13</sub>	-
Total national economy	t <sub>2.1</sub>	t <sub>1.2</sub>	t <sub>3.2</sub>	t <sub>4.3</sub>	t <sub>5.3</sub>	-	-	t <sub>6.10</sub> to t <sub>6.13</sub>	t <sub>7.10</sub> to t <sub>7.13</sub>	t <sub>8.</sub>	t <sub>9.10</sub> to t <sub>9.13</sub>	t <sub>10.6</sub> to t <sub>13.6</sub>	t <sub>11.7</sub> t <sub>12.7</sub>	t <sub>13.8</sub>	t <sub>10.9</sub> to t <sub>13.9</sub>	t <sub>1.2</sub>	t <sub>14.x</sub> t <sub>15.x</sub> t <sub>16.x</sub>	t <sub>17.x</sub>	t <sub>18.x</sub>
D. Rest of world	-	-	-	-	-	-	t <sub>19.1</sub> minus t <sub>1.19</sub>	t <sub>6.19</sub>	t <sub>7.19</sub>	-	t <sub>9.19</sub>	t <sub>19.6</sub>	t <sub>19.7</sub>	-	t <sub>19.9</sub>	-	-	-	-
E. Total	t <sub>2.1</sub>	t <sub>1.2</sub>	t <sub>3.2</sub>	t <sub>4.3</sub>	t <sub>5.3</sub>	-	t <sub>19.1</sub> minus t <sub>1.19</sub>	t <sub>6.x</sub>	t <sub>7.x</sub>	t <sub>8.x</sub>	t <sub>9.x</sub>	t <sub>x.6</sub>	t <sub>x.7</sub>	t <sub>13.8</sub>	t <sub>x.9</sub>	t <sub>1.2</sub>	t <sub>14.x</sub> t <sub>15.x</sub> t <sub>16.x</sub>	t <sub>17.x</sub>	t <sub>18.x</sub>

Note: The entries in the table refer to the corresponding entries of table 2. In order to simplify the presentation entries corresponding to the sum of entries of a row or of a column of table 2 are identified as t<sub>x,6</sub>, t<sub>x,7</sub>... and t<sub>6,x</sub>, t<sub>7,x</sub> etc.

19. The MPS matrix shown in table 2 below is derived from the financial balance, which is the most comprehensive table of the system and therefore provides the most suitable basis for describing the system in matrix form. As in the case of the SNA matrix, the entries represent sub-matrices. It should be noted that in many cases the financial balance provides only the sums of the rows or columns of these sub-matrices. The other tables of MPS provide the data from which the elements of these rows and columns can be derived.

20. In table 3, a condensed version of the MPS financial balance (in which the redistributive flows are combined into four main categories) is given, which shows the relationship between this balance and the MPS matrix.<sup>1/</sup> The contents of the entries in the matrix are described in detail in Annex II of this report.

#### IV. COMPARISON OF CONCEPTS AND DEFINITIONS IN SNA AND MPS

21. The matrices shown in Tables 1 and 2 of the previous section display the main structural differences between SNA and MPS, but they do not yet provide a basis for direct comparison of corresponding aggregates, because in many cases the composition of the entries in the cells of the matrix differ between the systems. For inter-system comparisons, entries in the two systems which differ in composition should be further sub-divided into components which can be separately identified in each system (referred to below as "elementary flows").

22. The following survey of concepts and definitions in SNA and MPS intends to give a relatively complete picture of the differences between the two systems. Each of these differences calls, in principle, for a sub-division of the flows in question into more detailed elementary flows. However, if all these sub-divisions were introduced the conceptual framework would be overloaded with many details which are of relatively little importance for actual comparisons. In developing the framework, therefore, only those differences were taken into account which are likely to be of quantitative significance. The other differences were disregarded, but they

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<sup>1/</sup> The entries in table 3 are identified by the same reference symbol as the corresponding entries in the matrix of table 2.

could be made the subject of separate adjustments outside the framework (i.e. the consequences of which are not traced through the systems as a whole) if in particular cases (e.g. when comparisons are made in respect of certain aspects of the economy) more refined adjustments are required than those needed for more general inter-system comparisons.

#### A. The transactor units in the systems

23. In SNA, two main classes of transactor units are used, one in connexion with the production, consumption expenditure and capital formation accounts; and the other with the income and outlay and capital finance accounts. In the production, consumption expenditure and capital formation accounts, categories of transactors are used which are designed to classify transactors according to the fashion in which they participate in the production and use of goods and services.

Public and private unincorporated enterprises are separated from government as a producer of government services and households as consumers and included among industries in the same category of producers as other units engaged in productive activities. The unit of observation used in grouping transactors into transactor categories and in classifying them by kind of activity is the establishment. In the income and outlay and capital finance accounts on the other hand, transactors are grouped into institutional sectors. In these accounts, institutions are not sub-divided according to the functions carried out. Thus, unincorporated government enterprises (which mainly produce goods and services for government itself or which mainly sell goods and services on a small scale to the public) are treated as part of general government, and small private unincorporated enterprises are included in the household sector. The unit of observation and classification in respect of the enterprise sector is the enterprise.

24. There is a difference between SNA and MPS in that in all parts of MPS a single classification is used, in which as a rule the enterprise is the primary (or single) unit of classification. The use of the enterprise as the unit for classifying industries by kind of activity is possible for the following reasons:

- (i) In centrally planned economies enterprises are to a very large extent organized on a kind of activity basis, i.e. the majority of enterprises is engaged mainly in a single kind of activity.

- (ii) Cases exist where an enterprise comprises several establishments (in the SNA sense) engaged in different activities, for which separate balance sheets and separate accounting records are kept. Though these establishments do not fulfil all legal requirements for being regarded as enterprises, they are not infrequently for statistical purposes treated as separate enterprises.
- (iii) Also in other cases, enterprises engaged in more than one kind of activity are usually sub-divided into separate units, if (i) the relevant data relating to the different kinds of activity can be reported separately; (ii) the activities in the different fields are quantitatively significant; and (iii) they belong to different main groups of industries distinguished in the industrial classification used (agriculture, industry, construction etc.).

25. In cases where enterprises are engaged in several kinds of activity, which belong to different industries this is taken into account also in the classification of financial flows by kind of activity. In the practice of a number of MPS countries the classification of financial flows by kind of activity is done in the following way: at the first stage of the computations all financial flows are shown for the enterprise as a whole, and at the second stage transfers are imputed between the enterprises themselves and their units which are engaged in other kinds of activity.

26. In many practical respects the enterprise units used in MPS are therefore similar to the establishment in SNA. For this reason, and since adjustments are very difficult to make, it would seem that the difference in the units used can be disregarded in inter-system comparisons.

### 3. The borderline between resident and non-resident units

27. In SNA resident producers are defined so that all and solely production taking place on the domestic territory of a given country is encompassed (for details see paragraphs 5.100 to 5.102 of SNA). In MPS no explicit reference is made to the concept of resident unit, but the concept implicitly used corresponds to the SNA concept, except on the following points<sup>1/</sup>.

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<sup>1/</sup> There is also a difference between SNA and MPS as regards the delimitation of resident units in the context of final consumption expenditure of households. This difference is considered in paragraph 51 below.

- (a) Embassies, consulates, etc. which in SNA are treated as resident units of the countries which they are representing, are in MPS regarded as resident units in the countries where they are located;
- (b) International organizations are treated as non-resident units in SNA but as resident units in MPS.
- (c) In some contexts, the currency in which the payment is made is the criterion for distinguishing resident from non-resident units, e.g. transactions in the domestic market against payment in foreign currency are treated as transactions with non-resident units.

28. In the conceptual framework developed in this paper these differences between the systems have been ignored.

#### C. Production

##### (a) The scope of productive activities

29. The quantitatively most important difference between the systems is that of the boundary of production. In SNA with a few exceptions (e.g. illegal transactions) virtually all activities relating to the production of goods and the provision of services are treated as "productive". Only activities which are not conventionally remunerated (e.g. housewives' services) are excluded from the production concept. In MPS the production concept is limited to (i) goods and (ii) services related to the production, repairs, transportation and distribution of goods (usually referred to as material services)<sup>1/</sup>. Other services (referred to as non-material services) are treated as outside the production boundary.

30. The following activities (in terms of the ISIC major groups or groups)<sup>2/</sup> are treated as non-material activities in MPS:<sup>3/</sup>

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<sup>1/</sup> Passenger transport, though not strictly falling under this definition of material services, is for practical reasons also treated as a material service.

<sup>2/</sup> International Standard Industrial Classification of all Economic Activities, Statistical Papers, Series M. No.4 Rev.2.

<sup>3/</sup> It should be noted that the term "non-material services" used here and in other parts of this paper includes certain services, e.g. financial and insurance services which at least in the context of the MPS financial balance are not normally referred to as non-material services.



- 6320 Hotels, rooming houses, camps and other lodging places
- 810 Financial institutions
- 820 Insurance
- 831 Real estate<sup>1/</sup>
- 832 Business services, except machinery and equipment rentals and leasing (except 8324, engineering, architectural and technical services)
- 910 Public administration and defence
- 920 Sanitary and similar services
- 931 Education services
- 932 Research and scientific services
- 9331 Medical, dental and other health services
- 934 Welfare institutions
- 935 Business, professional and labour associations
- 939 Other social and related community services
- 941 Motion picture and other entertainment services (except 9411 motion picture production)
- 942 Libraries, museums, botanical and zoological gardens and other cultural services not elsewhere classified
- 949 Amusement and recreational services not elsewhere classified
- 953 Domestic services
- 959 Miscellaneous personal services
- 960 International and other extra-territorial bodies

31. In addition, some other activities which are part of ISIC groups, are also treated as non-material activities in MPS, in particular:

- (i) certain services incidental to transport (part of ISIC 7191) such as tourist agencies, tourist development services;
- (ii) certain types of activities included in engineering, architectural and technical services, notably those which are not connected with construction (part of ISIC 8324),
- (iii) part of veterinary services, namely those which are not connected with agriculture (part of ISIC 9332).

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<sup>1/</sup> In SNA, a separate category "831\* owner occupied dwellings" is distinguished. In MPS, the ownership of dwellings occupied by their owner is not treated as an activity (and no imputation of rents in respect of these dwellings is made).

32. In adjusting MPS data to SNA concepts, all the activities listed in paragraphs 30 and 31 should be brought within the scope of production. Similarly, in adjusting SNA data to MPS concepts all these activities should in principle be excluded from the scope of production. While this is not likely to raise particular problems in the case of MPS, countries using SNA may find it difficult to separate the activities shown in paragraph 31 from the other activities covered by the ISIC groups concerned and may therefore need to confine the adjustment to the activities mentioned in paragraph 30. This would imply that, with regard to the scope of production, better comparability would be obtained on the basis of SNA concepts than on that of MPS concepts. However, as the activities referred to in paragraph 31 will usually be of relatively little importance, the treatment of these activities as material activities when SNA data are converted to MPS concepts, is not likely to impair inter-system comparisons to any significant extent.

(b) Gross output (Global product)

33. In SNA, gross output is defined:

- (i) in respect of commodities: as the gross value of the goods and services produced;
- (b) in respect of other goods and services: as the cost of producing the goods and services in question.

Global product, in MPS corresponds essentially to this concept, except of course that it includes only goods and material services. The concept of gross output and global product are in principle also affected by the differences in the transaction units used in the systems, but, as already pointed out, these differences are not likely to affect inter-system comparisons to any significant extent.

34. SNA gross output and MPS global product differ on the following points:

(1) Gross output of the catering trades

In SNA, the treatment of restaurants and cafes is the same as that of goods producing industries, i.e. gross output is defined as the gross value of the food and beverages sold, and input of "raw materials" (cost to the producer of the food and beverages

sold) is treated as intermediate consumption. In MPS, the treatment of restaurants and cafés is similar to that of the distributive trade, i.e. only the gross margin realized in the sale of food and beverages is included in gross output (and the cost of food and beverages consumed is therefore not included in material cost).

(11) Waste materials sold by producing units

In SNA the sales value of waste materials which are by-products of the manufacture of commodities is included in gross output. In MPS it is not included in gross output, but deducted from intermediate consumption.

(111) Waste materials bought from households

In SNA only dealers' margins and other transfer costs in connexion with the purchase of waste materials from households are included in gross output; in MPS the total value of the waste materials is included.

(1v) The treatment of tips

In SNA tips are regarded as a payment for services, and included in the value of production. In MPS, tips above the service charge included in the bill (if any) are treated as redistribution (transfer) payments and excluded from the production value.

35. Of the differences mentioned, those relating to the treatment of output of the catering trades and to sales of waste materials by producing units affect only gross output and not the measures of output net of intermediate consumption in the two systems (gross domestic product in SNA, national income in MPS). As for inter-system comparisons net concepts are likely to be of greater interest than gross output, the difference in the concepts of gross output on these points are not taken into account in the conceptual framework. The other differences mentioned affect both gross and net output. However, as they are likely to be of little quantitative significance they may also be disregarded. The only inter-system adjustment proposed in respect of gross output is, therefore, that which relates to the treatment of non-material services.

(c) Intermediate consumption, consumption of fixed capital

36. In SNA the most important production aggregate is the gross domestic product, which is defined as gross output minus intermediate consumption. In MPS more emphasis is given to the concept of national income, which is not net only of intermediate consumption but also of consumption of fixed capital.

Intermediate Consumption

37. The main difference between SNA and MPS, as regards the definition of intermediate consumption results from the difference in the scope of production in the two systems. In SNA, intermediate consumption includes all non-durable goods and services used up in production of industries, and the acquisition of all new goods and services on current account of other producers. In MPS, intermediate consumption relates to inputs of units in the material sphere only, and is limited to goods and material services.

38. In addition to these differences, resulting from differences in the production boundary, and some other differences already mentioned in connexion with the definition of gross output (purchases of the catering trades, sales of waste materials by producing units, see paragraph 34 above), intermediate consumption as defined in the two systems differs on the following points:

(1) Expenditure by enterprises and other units on cultural, sport and similar facilities for their employees

In SNA these expenditure items are treated in the same way as other expenditure connected with business, i.e. expenditure incurred in connexion with the provision of these facilities is included under the same heading where similar expenditure categories incurred in connexion with the normal activities of the enterprises or other units are recorded. Thus, expenditure on goods and services are included in intermediate consumption. In MPS on the other hand, these facilities are normally provided by separate units, which are treated as part of the non-material sphere. Expenditure by enterprises and other units

incurred in connexion with the provision of these facilities are regarded as transfers, which, in the case of enterprises in the material sphere are charged against the operating surplus. In so far as they relate to goods and material services or consumption of fixed assets, they appear as final consumption of the units providing the facilities.

(ii) Travel expenses in connexion with business

In SNA travel expenses and other similar types of expenses incurred by employees in connexion with the business of their employers are treated as intermediate consumption. In MPS these travel and similar types of expenses are not included in intermediate consumption, but treated as primary incomes of the population. Insofar as they relate to goods or material services they appear as final consumption of the population.

(iii) Expenditure on uniforms

In both systems the aim is to distinguish between dress uniforms and working uniforms. Expenditure on the first type of uniform is in principle treated as an income payment in kind (and included in final consumption) and expenditure on the latter type as intermediate consumption. There may, however, be some differences between the two systems as regards the practical application of this principle, e.g. as regards military uniforms used mainly for military exercise.

(iv) Expenditure on fixed assets used for military purposes

In SNA this expenditure is treated as intermediate consumption of producers of government services, whereas in MPS it is included in capital formation.

(v) Losses of stocks

In both systems losses of stocks due to normal events in production (losses in the storage of products) are included in intermediate consumption. In SNA losses of stocks due to

"normal" or "foreseen" actual damage, and in practice also losses due to major calamities are also treated as intermediate consumption. In MPS these losses are recorded under a separate heading "losses" (see also paragraph 71(iv) below.

39. The first two differences mentioned may be of some quantitative significance, and have therefore been taken into account in the conceptual framework for inter-system adjustments. The difference in the treatment of expenditure on fixed assets used for military purposes is also likely to be of sufficient importance to be taken into account in inter-system comparisons. However, since there is no indication in MPS as to where the borderline between current and capital expenditure for military purposes is drawn, no provision is made in respect of this item in the conceptual framework, but it is recommended that in actual comparisons such an adjustment should nevertheless be made. In the conceptual framework account has also been taken of the difference between SNA and MPS in the treatment of losses of stocks. The difference in the treatment of uniforms, however, is likely to be of lesser importance and has therefore been ignored.

#### Capital consumption

40. Capital consumption is, in principle, treated in the same way in the two systems (except that in MPS, in accordance with the definition of the production boundary, capital consumption in the non-material sphere is treated as final consumption, and is not deducted in calculations of the national income, whereas in SNA the measures of net product are net of all allowances for capital consumption). On the following specific points, however, there are differences between the two systems:

- (i) Differences between the actual and the written-off value of scrapped assets (depreciation adjustment). In both systems the sales value of scrapped assets is treated as negative fixed capital formation. In SNA if this value differs from the written-off value of the assets concerned, the difference is regarded as a capital gain or loss and is not recorded in the production, consumption

and accumulation accounts of the system. In MPS, however, when there is a difference between the actual value and the written-off value (depreciated book value) of scrapped assets, this difference is recorded as an adjustment to the depreciation allowances during the period in which the assets are scrapped. The depreciation adjustment is negative when the scrap value exceeds the depreciated book value, and positive when it is lower than the depreciated book value.

(ii) Capital consumption in respect of afforestation and improvements to land and in respect of roads, bridges and similar structures.

In SNA no capital consumption allowances are charged in respect of afforestation, improvements to land, and roads and similar structures, whereas in MPS it is recommended that depreciation on these items should be included in capital consumption. The differences on this point between SNA and MPS, may, at least partly be the result of differences in respect of the delineation between current and capital repairs in the two systems.

(iii) Normal losses

In both systems, losses of fixed assets which are due to normal events in production are included in capital consumption. There is a difference between SNA and MPS as regards the treatment of other losses in fixed assets, in that losses due to accidental damage (other than those which are due to major calamities) are included in SNA in capital consumption, whereas in MPS they are part of the category of "losses" which is shown as a separate heading.<sup>1/</sup>

(iv) Valuations of consumption of fixed capital

In SNA, capital consumption is, in principle, calculated in terms of replacement cost. In countries using MPS, stocks of fixed assets are usually recorded at the prices at which the assets have been purchased, but once every 8 or 10 years, a general revaluation of the stock of assets is carried out. Capital consumption is calculated on the basis of the purchase price of the assets, or, if a general revaluation has been carried

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<sup>1/</sup> The difference in the treatment of losses in the two systems is discussed in more detail in paragraph 71(iv) below.

out since the purchase of the assets on the basis of the revalued purchase price.

41. There are significant differences, not only between the concepts of consumption of fixed capital used, but also between the ways in which these concepts are approximated in the countries concerned. As a result of this, comparisons of fixed capital consumption (not only between countries using different systems but also between countries using the same system) are therefore necessarily of a broad nature and subject to relatively important margins of error. Therefore, though it is recognized that the conceptual differences described in the previous paragraph may be of some quantitative significance, they have been disregarded in the conceptual framework for inter-system adjustments developed in this report.

(d) Valuation of production

42. In SNA three bases of valuation are used: (i) at market prices, i.e. including net indirect taxes (indirect taxes minus subsidies); (ii) at basic values, i.e. excluding net commodity taxes; and (iii) at factor values, i.e. excluding all indirect taxes, net. In MPS only one basis of valuation is recommended which corresponds to the SNA valuation in market prices. In some countries using MPS valuation at market prices excluding turnover taxes is also used (in particular in respect of the main production aggregates).

43. For the purpose of inter-system comparisons, valuation at market prices is recommended. Goods and services rendered free of charge should be valued at explicit cost. As an exception to the general rule of valuation at market prices, however, it is proposed that for adjusting MPS data to SNA concepts, certain goods and services which in most MPS countries are sold at prices which cover only a small proportion of total cost, notably medicines and housing services, should be valued at explicit cost, rather than the prices actually paid by the consumers.

44. There are some differences between SNA and MPS as regards the scope of the taxes included in production valued at market prices. Certain taxes which in SNA are considered indirect taxes (import duties paid by households; some other taxes paid by households) are treated in MPS as direct taxes. As the differences are likely to be relatively unimportant, it would seem that they do not call for special adjustments.



45. Some remarks should also be made in respect of the valuation of gross output of foreign trade. In MPS two methods are described:

- (i) According to the first method - referred to as the basic method - gross output of foreign trade (T) is arrived at as follows:

$$T = (I_b - I_a) + (E_a - E_b) = (I_b - E_b) + C_a$$

in which:

$I_a$  and  $E_a$  = value of imports and exports converted into the domestic currency by means of official exchange rates

$I_b$  and  $E_b$  = value of domestic sales of imports and of domestic purchases for export

$C_a$  = net exports converted into domestic currency by means of the official exchange rate (=  $E_a - I_a$ )

- (ii) According to the second method, which is used in some MPS countries, gross output of foreign trade is compiled by converting net imports or net exports into domestic currency by means of computed exchange rates, rather than the official exchange rates, i.e. instead of  $C_a$  a corrected export or import surplus  $C_b$  is used in the calculations.  $C_b$  is calculated as follows:

- when imports exceed exports:  $C_b = (I_a - E_a) \frac{I_b}{I_a}$

- when exports exceed imports:  $C_b = (I_a - E_a) \frac{E_b}{E_a}$

and gross output of foreign trade is then equal to  $I_b - E_b + C_b$  (with the + sign in the case of an export surplus and the - sign in the case of an import surplus).

46. Gross output of foreign trade in MPS, calculated on the basis of the basic method is the same as the gross trade margins realized in imports and exports as defined according to SNA, and no adjustments are therefore required. When the second method is used, there is a difference between SNA and MPS, which, however, is a difference of valuation and not of concept. It should be noted

that the use of computed exchange rates affects net exports as well as the trade margins, but not the combined results of the two; irrespective of whether actual or computed exchange rates are used, gross output minus net exports equal  $I_b - E_b$ . In the framework for inter-system comparisons developed in this report, differences between SNA and MPS arising from the use of the second method have been ignored.

#### D. Final consumption

##### (a) Total final consumption

47. The differences between total final consumption expenditure in SNA and total final consumption in MPS result mainly from the differences in the production concepts adopted in the two systems. The most important difference is that in MPS final consumption is limited to goods and material services, whereas the corresponding concept of SNA includes non-material services as well. In MPS payments for non-material services are recorded as redistribution (transfer) payments, and only the material input used up in rendering these services is included in final consumption. Other differences in the concepts of final consumption arising from differences in the production concepts relate to the treatment of:

- (i) sales of waste materials by households;
- (ii) expenditure by enterprises on cultural, sport and similar facilities for their employees;
- (iii) travel expenses in connexion with business;
- (iv) expenditure on uniforms;
- (v) import duties and certain indirect taxes paid by households.

As indicated in the preceding parts of this report, only the second and the third of these differences have been taken into account in the framework for inter-system comparisons.

48. As already pointed out in paragraph 38(iv) above, a further difference between SNA and MPS is that in the former expenditure on fixed assets used for military purposes is treated as intermediate consumption of producers of Government services and therefore enters final consumption expenditure of general Government whereas in the latter it is included in capital formation.

For the reasons given in paragraph 39 above no provision is made for an adjustment in respect of this item in the conceptual framework; but it is recommended that it should be taken into account in actual comparisons.

(b) The categories of final consumption

49. In both systems, three categories of final consumption are distinguished: in SNA (i) final consumption expenditure of households; (ii) government final consumption expenditure; and (iii) final consumption expenditure of private non-profit bodies serving households; and in MPS (i) personal consumption of the population; (ii) consumption of institutions serving the population; and (iii) consumption of institutions satisfying the community needs of the society.

50. The distinction between final consumption expenditure of households and other final consumption expenditure in SNA corresponds in principle with that between personal consumption of the population and other final consumption in MPS (except of course for the limitation of the MPS categories to goods and material services). The further sub-division of non-household final consumption, however, is based on different principles in the two systems: in SNA the criterion for the sub-division is the type of transactor providing the goods and services in question (government or private non-profit bodies); and in MPS it is the nature and the purpose of the goods or services furnished. Because of the institutional differences between the countries using SNA and MPS comparisons for the individual components of final consumption, based on the existing concepts of the systems are not particularly meaningful. The following description of the conceptual differences is therefore limited to the concepts of final consumption of households on the one hand, and other final consumption as a whole on the other. More meaningful comparisons can be made on the basis of total consumption of goods and services by the population, which is not affected by institutional differences. The definition of this concept and its relation to SNA and MPS concepts is considered in sub-section (c) below.

Final consumption of households

51. In SNA two concepts of final consumption of households are used: final consumption expenditure of resident households and final consumption expenditure of households in the domestic market. The first concept includes expenditure abroad by resident households and excludes expenditure on the domestic territory

by non-resident households. The second concept relates to expenditure of both resident and non-resident households on the domestic territory of the country. In MPS only one concept is used, which corresponds to the second SNA concept (except, of course, that it relates to expenditure on goods and material services only).

52. In the framework for inter-system comparison developed in this report, it is recommended that, insofar as SNA is concerned, the comparisons should be based on the concept of final consumption expenditure of resident households, which is one of the components of expenditure on the gross domestic product and therefore permits final consumption expenditure to be analysed in the context of gross domestic product as a whole. This implies that in order to convert MPS data to SNA concepts, certain adjustments are needed. These adjustments have been taken into account in the conceptual framework set out below.

53. The differences in the SNA and MPS concepts of total final consumption mentioned in paragraph 47 above all affect the coverage of final consumption of households in the two systems. As indicated, only the differences as regards the treatment of expenditure by enterprises or cultural etc. facilities, and travel expenses in connexion with business are likely to be of sufficient importance to be taken into account in the conceptual framework for inter-system comparisons.

54. In addition to the differences mentioned, SNA final consumption expenditure of resident households and MPS personal consumption of the population differ on the following points:

- (i) In SNA expenditure of government services on goods and services accruing to households are treated as a transfer to households and included in their final consumption expenditure, if the households are relatively free to select the unit which is to furnish the goods and services in question and the terms on which they are to be supplied. In MPS, the criterion for the allocation of expenditure is that of the unit which actually pays for the goods and services in question. Expenditure by the government on goods and services accruing to households is recorded as expenditure of

institutions serving the population (as final consumption of these institutions, if the expenditure relates to goods or material services, and as redistribution payments, if it relates to non-material services).<sup>1/</sup>

- (ii) While in MPS material cost of non-material services is generally treated as consumption of institutions in the non-material sphere, depreciation of dwellings and other material cost involved in the provision of housing services (including both rented and owner occupied dwellings) is allocated to personal consumption of the population. In SNA rents paid and imputed rents on owner occupied dwellings are included in final consumption expenditure of resident households.

55. The difference in the allocation of final consumption expenditure referred to in paragraph 54(1) is relevant only when SNA data are converted into MPS concepts, since it involves the transfer of certain elements of final consumption expenditure of households to other final consumption expenditure and provision for the appropriate adjustments should therefore be made. In MPS countries the circumstances under which free goods and services are supplied by the government to households are generally such that, on the criteria adopted in SNA, the expenditure in question would be allocated to other final consumption expenditure rather than final consumption expenditure of households. The conversion of MPS data to SNA concepts therefore does not call for special adjustments.

56. The differences in the treatment of rents and material cost incurred in connexion with the provision of housing call for special adjustments. In MPS countries, rents are generally very low, and in fact often below the level of actual depreciation. With a view to avoiding anomalies in the results, it is proposed that in converting MPS data to SNA concepts, the provision of housing should be valued not in terms of rents (paid or imputed) but in terms of actual cost (i.e. by adding to depreciation and other material expenditure also the non-material component of cost). The data needed for inter-system adjustments on this point are provided for in the conceptual framework developed below.

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<sup>1/</sup> It should be noted, however, that the total value of goods and material services accruing to the population can be obtained from MPS by counting the categories of personal consumption and consumption of institutions serving the population.

Other final consumption

57. Total consumption of institutions serving the population and of institutions satisfying the community needs of the society, as defined in MPS, corresponds essentially to the material part of final consumption expenditure of government and private non-profit bodies in SNA, plus the material input of these units in the non-material sphere which are classified in SNA to industries. There are some further differences between the two systems on the following points: (i) the treatment of expenditure on military equipment (paragraph 48); and (ii) the allocation of expenditure by government on goods and services accruing to the population (paragraph 54(i)). The extent to which these differences should be taken into account in the conceptual framework for inter-system adjustments is discussed in paragraphs 48 and 55 above.

(c) Total consumption of goods and services by the population

58. The aim of the concept of total consumption of the population is to bring together all goods and services accruing to the population, irrespective of the sources from which they are financed, and thus to provide a better overall picture of consumption than the SNA concept of final consumption expenditure of households and the MPS concept of personal consumption. Unlike the latter concepts, the concept of total consumption is not affected by the institutional arrangements in the different countries and is therefore particularly suitable for international comparisons.

59. In MPS the concept of total consumption of the population is used as a supplementary concept. There is no corresponding concept in SNA, but the system provides the elements from which total consumption can be derived.

60. For international purposes, it is desirable that the concept of total consumption should be designed as a single concept, that can be derived from the existing consumption concepts in the two systems. The concept recommended for international comparisons is described below.

Consumption financed from the income of the population

61. This part of total consumption corresponds in principle with final consumption expenditure of households as defined in SNA and personal consumption of the population plus purchases of non-material services by the population as defined in MPS. As pointed out above, there are a number of points on which the corresponding concepts in SNA and MPS differ. If total consumption of the population

is to be designed as a single concept, it would in principle be necessary to adopt specific conventions as regards the treatment of the items which are treated differently in the two systems. In most cases, however, the differences are of minor importance and could be ignored in defining total consumption. The only difference of quantitative significance is that of the treatment of travel expenses paid for by the employer. It is recommended that this item should, if possible, be included in total consumption, i.e. that when total consumption is derived from SNA concepts, it should be added to final consumption expenditure of households.

62. In the context of total consumption of the population, consumption from own production should be valued at producers' prices. It is desirable, however, that when comparisons are made, separate data in terms of consumers' prices be provided as memorandum items.

#### Household consumption financed from other sources

63. In SNA, the range of goods and services provided by government or by private non-profit bodies may be defined in terms of the purpose classifications of the system. It is recommended that the following categories of these classifications should be included:

##### Purposes of government

- 3.2 schools, universities and other educational facilities
- 3.3 subsidiary services
- 4.2 hospitals and clinics
- 4.3 individual health services
- 5.2 welfare services
- 6.1 housing (part only, i.e. current housing subsidies or similar grants)
- 7.1 recreational and related cultural services
- 7.2 religion and services n.e.c.

##### Purposes of private non-profit bodies

- 2. education
- 3. medical and health services
- 4. welfare services
- 5. recreational and related cultural services
- 6. religious organizations

64. In the context of MPS, the scope of this part of total consumption can be defined in essentially the same terms on the basis of the kind of activity classification of the system.

65. Total consumption should also include certain services provided by employers which are of direct benefit to their employees. There are some problems in deciding when a service rendered to employees should be regarded as for their direct benefit. It is recommended that in principle all services, which are similar in character to those covered by the purposes of government and private non-profit bodies listed above, should be included.

66. The goods and services provided by government, private non-profit bodies and enterprises should be valued in terms of current expenditure on the production of these goods and services, excluding capital expenditure. There are some differences between SNA and MPS as regards the items that would be included in current expenditure, but these are likely to be of minor importance and could be ignored.

67. While subsidies should in general not be included in total consumption expenditure, it may be desirable to make an exception for certain subsidies or similar grants which under certain circumstances may cover the major part of goods and services consumed by the population, notably current housing subsidies and subsidies on pharmaceutical products.

#### E. Capital formation

68. In both systems the aggregates for capital formation and their main components, capital formation in stocks and fixed capital formation, play an important role. However, as in respect of production, in SNA more emphasis is given to the gross concept of capital formation (i.e. before deduction of allowances for capital consumption) whereas in MPS the net concept is more often used.

69. Since capital formation covers only goods and material services, the conceptual differences between SNA and MPS are less important than in the case of production and final consumption concepts. They result mainly from differences in the treatment of particular items of production and in the delineation of capital formation versus other categories of final utilization.



70. In accordance with the definition of resident units adopted or implied in the systems (paragraph 27 above) capital formation of embassies, consulates, etc. is treated as capital formation of the country of location in MPS, but as that of the country represented by the embassies etc. in SNA. Similarly, capital formation of international organizations is included in capital formation in MPS, but excluded in SNA. In most cases this difference is likely to be of minor importance. It has therefore been ignored in the conceptual framework.

71. There are the following further differences between SNA and MPS as regards the concepts of fixed capital formation and capital formation in stocks in the two systems:

- (i) Work put in place on structures, roads, dams, ports and other forms of construction  
This item is included in fixed capital formation in SNA but in capital formation in stocks in MPS.
- (ii) Expenditure on military equipment  
In SNA, expenditure on military equipment is treated as intermediate consumption of producers of government services and therefore enters final consumption expenditure, whereas in MPS it is included in fixed capital formation (see paragraph 48 above).
- (iii) Refined gold ingots and other monetary gold  
In MPS, all changes in stocks of gold, whether for monetary purposes or not, are included in capital formation in stocks. In SNA, gold ingots and other monetary gold (i.e. gold other than gold ore, unrefined gold and gold for industrial use) are treated as financial assets. This implies that when non-monetary gold is converted into monetary gold an imputed commodity export is recorded, which is balanced by an imputed acquisition of financial assets. Changes in monetary gold therefore do not affect capital formation as defined in SNA, except insofar as they are the result of the conversion of monetary gold into non-monetary gold or vice-versa.

(iv) Treatment of losses

There are important differences in the treatment of losses between the two systems:

- In SNA a distinction is made between "foreseen" and other - "unforeseen"- losses. The category of foreseen losses includes losses due to normal events in production (e.g. losses in the storage of products) and losses due to normal accidental damage (car accidents, fire etc.). Allowances for fixed capital consumption are designed to cover the normal amount of accidental damage to fixed assets; foreseen losses in stocks are treated as part of intermediate consumption. Unforeseen losses include losses due to floods, earthquakes and other major calamities. Unforeseen losses of fixed assets are treated as capital losses, which are not recorded in the present accounts of the system.<sup>1/</sup> Unforeseen losses of stocks are, in principle, also treated as capital losses, but in practice they are likely to be included in most instances in intermediate consumption.
- In MPS, losses due to normal events in production are treated in the same way as in SNA, i.e. losses in stocks are included in material inputs and losses in fixed assets are deemed to be covered by depreciation. All other losses, i.e. including both losses due to normal accidental damage and losses due to major calamities are charged against net capital formation during the year in which they occur and recorded as a separate final use category "losses".

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<sup>1/</sup> Capital losses will appear in the balance sheet and revaluation accounts of the system which are being developed.

The relationship between the SNA and MPS concepts is therefore as follows:

Type of losses	Included in:	
	SNA	MPS
1. Losses in stocks due to normal events in production	} Intermediate consumption	} Material inputs
2. Losses in stocks due to accidental damage		
3. Losses in stocks due to major calamities	} Capital losses, but in practice usually included in intermediate consumption	} Losses in stocks
4. Abandoned construction		
5. Losses in fixed capital due to major calamities	} Capital losses	} Losses in fixed assets
6. Losses in fixed assets due to accidental damage		
7. Losses in fixed assets due to normal events in production	} Consumption of fixed capital	} Depreciation

(v) The treatment of transfer costs in respect of transactions in second-hand fixed assets

In SNA these transfer costs are included in fixed capital formation, whereas in MPS they are treated as transfer payments.

72. In the conceptual framework provision is made for adjustments for differences in the treatment of work put in place on construction projects. In principle, the difference in the treatment of expenditure on military equipment and of monetary gold also call for adjustments. They have not been introduced in the conceptual framework but it is proposed that countries should make them, if the necessary data can be provided. Provision has been made in the framework for adjustments for differences in the treatment of losses, except that, inter alia, for the reasons set out in paragraph 41 above, differences in the treatment of losses of fixed assets due to accidental damage have been ignored. The difference in the treatment of transfer cost in respect of transactions in second-hand fixed assets is likely to be of minor importance and has therefore been disregarded in the conceptual framework.

73. The differences described in the previous paragraph relate to both gross and net capital formation. The concepts of net capital formation are furthermore affected by the differences in the treatment of capital consumption. These differences have been discussed in paragraphs 40 and 41 above.

#### F. Losses

74. As mentioned before, MPS distinguishes a separate final use category for losses. There is no corresponding category in SNA. The differences in the treatment of losses in the two systems have been described in paragraph 71 above.

#### G. Exports and imports

75. The concepts of imports and exports are affected by the delineation of the resident units in the systems. As pointed out in paragraph 27 above, there are some differences on this point between SNA and MPS, but it is not proposed that these should be accommodated in the framework for inter-system adjustments. They could be made the subject of separate adjustments in cases where they are of sufficient quantitative significance.

76. In accordance with the definition of the production boundary in the systems, imports and exports in MPS are limited to goods and material services, whereas in SNA non-material services are included as well. The conceptual framework provides the elementary flows on the basis of which adjustments for the difference can be made.

77. The SNA and MPS concepts of imports and exports differ on the following further points:

- (i) In MPS direct imports and exports by households are not included in imports and exports. They are recorded as part of a redistribution flow relating to the balance of receipts in foreign currency from foreign tourism. In SNA these direct imports and exports are included in imports and exports.
- (ii) Purchases and sales abroad by resident units of goods which do not cross the border of the country concerned  
In MPS, the purchases of these goods are included in imports and the sales in exports. In SNA, in the case of commercial trade, only the gross margins on the transactions are recorded and treated as export of services.

(iii) Gold

In MPS no distinction is made between monetary and other gold. All transactions in gold with the rest of the world are included in imports and exports. In SNA, transactions in non-monetary gold (gold ore, unrefined gold and gold for industrial use) are treated in the same way as in MPS. Gold ingots and other monetary gold, however, are treated as financial assets and transactions in these assets with the rest of the world are not included in imports and exports (see paragraph 71(iii) above). On the other hand, when monetary gold is used for non-monetary purposes, or non-monetary gold is converted into monetary gold, this is recorded as an import or export respectively of goods and services (even though the gold does not cross the border of the country).

(iv) Licenses

In MPS purchases of licenses from, and sales to, non-residents are included in imports and exports. In SNA they are not included in imports and exports, but treated as transactions in royalties or intangible assets, depending on whether the transaction represents a once-for-all transfer of the legal title or not.

(v) Gifts in kind sent abroad or received from abroad by households

In SNA, these gifts are included in imports and exports, but in MPS they are not covered.

78. In the conceptual framework, an adjustment has been provided for the difference in the treatment of direct imports and exports of households. The difference in the treatment of gold may also be quantitatively significant. Though no adjustment is provided for in the conceptual framework, it is suggested in actual comparisons that a separate adjustment should be made if the necessary data can be made available. Purchases and sales abroad of goods which do not cross the border may be important in some SNA countries, but they are generally of marginal importance in countries using MPS. Moreover, the difference in the treatment of these transactions does not affect net exports or imports. It has therefore been disregarded in the conceptual framework. The other differences in the treatment of imports and exports are likely to be of minor importance, and have therefore not been taken into account in the framework.

#### H. Value added - primary incomes

79. In both systems the starting point for the analysis of income is income from productive activities: in SNA, value added; in MPS, primary income. Value added as defined in SNA is gross of consumption of fixed capital, whereas MPS primary income is net of it. However, as in each system capital consumption is separately identified, this difference does not hamper inter-system comparisons.

80. It should be recognized that the SNA and MPS concepts relating to the components of value added/primary incomes are significantly affected by the institutional arrangements in the countries concerned, e.g. the scope and contents of the social security arrangements, the socio-economic nature of income of unincorporated/private enterprises. Comparisons of these concepts are nevertheless of interest, and provision for such comparisons has therefore been made in the adjustment tables proposed in this report.

##### (a) Total value added - primary income

81. Both SNA value added and MPS primary income are defined as gross output minus intermediate consumption (in the case of MPS, also minus capital consumption). The differences between the two concepts therefore correspond to those already described in connexion with the concepts of production and intermediate consumption in parts B and C of this section. The main difference is that MPS primary income is confined to income originating in the material sphere, whereas SNA value added includes income from non-material as well as from material activities. In MPS income-flows relating to non-material activities are treated as part of redistribution. Other differences between the two concepts arise from differences in:

- (i) the delineation of resident units (see paragraph 27 above);
- (ii) the treatment of sales of waste materials by households (paragraph 34(ii));
- (iii) the treatment of tips (paragraph 34(iv));
- (iv) the treatment of expenditure by enterprises on cultural, sport and similar facilities (paragraph 38(i));
- (v) the treatment of travel expenses in connexion with business (paragraph 38(ii));
- (vi) the treatment of expenditure on uniforms (paragraph 38(iii));

- (vii) the treatment of indirect consumption (paragraph 40);
- (viii) the treatment of some indirect taxes paid by households (paragraph 44).

82. The extent to which these differences should be taken into account in the conceptual framework is to be discussed in sub-sections B and C above.

b) The components of value added and primary income

83. The components of SNA value added are (in addition to capital consumption): compensation of employees; operating surplus; indirect taxes (net of subsidies); those of MPS primary income are: primary incomes of the population; and primary incomes of enterprises. SNA compensation of employees corresponds in principle to MPS primary incomes of the population; and SNA operating surplus plus net indirect taxes to MPS primary incomes of enterprises. There are, however, differences between the corresponding concepts as regards the allocation of particular items of income.

(i) Social security contributions

In SNA social security contributions paid by employers on behalf of their employees are included as compensation of employees; in MPS they are treated as payments out of the primary income of enterprises.

(ii) Employers' contributions to pension funds on behalf of their employees

In SNA employers' contributions to pension funds (actually paid or imputed, if no actual contribution is made) are included in compensation of employees. In MPS contributions actually made are treated as payments out of the primary income of enterprises. In cases where there is no actual payment, no imputation is made.

(iii) Net incomes of unincorporated enterprises/private farms, other unincorporated enterprises and personal plots

In SNA these incomes are included in operating surplus; in MPS in primary incomes of the population.

84. These differences have been taken into account in the conceptual framework for inter-system adjustments, except that for employers' contributions to pension funds the framework provides only for adjustments in respect of contributions actually made. It is proposed that adjustments for imputed contributions, if any, should be made separately.

## I. Redistribution of income

85. Both SNA and MPS provide for a detailed further analysis of the redistribution of value added and primary income respectively, which leads to disposable income in SNA and final income in MPS. Pending the development of a system of statistics of the distribution of income, consumption and wealth, which is complementary to SNA and MPS, no proposals for adjustment tables relating to these concepts are made in this paper, and the differences between the SNA and MPS concepts are therefore not discussed.

## V. THE ELEMENTARY FLOWS IN SNA AND MPS

86. The next step in the preparation of the conceptual framework for inter-system comparisons consists of the further development of the SNA and MPS matrices set out in tables 1 and 2 above, with a view to separating the components of the various flows which are treated differently in the two systems. The developed matrices are presented in tables 4 and 5 below.<sup>1/</sup> The sub-divisions and other adjustments which have been introduced in these matrices are described in the following paragraphs.

### A. The development of the SNA matrix

#### 1. Adjustments for differences in the scope of production

87. The differences in the scope of production described in paragraphs 29 to 32 above call for a systematic distinction between material and non-material activities in the SNA matrix. The matrix presented in table 1 already provides for this distinction in respect of commodities and activities. This distinction is defined in terms of the ISIC. Non-material activities include in principle the activities covered by the ISIC major groups and groups listed in paragraph 30. In principle, the activities listed in paragraph 31 should also be regarded as non-material activities, but as already pointed out, it will often be necessary in SNA-MPS adjustments, to treat these activities as material activities.

88. In SNA, the unit used in classifying industries by kind of economic activity is the establishment or equivalent unit. Cases may arise that establishments mainly engaged in material production carry on secondary activities in the non-material sphere, or that establishments engaged in

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<sup>1/</sup> A more detailed description of the contents of the entries in the developed version of the matrices is given in Annexes I and II to this report.





non-material activities have secondary activities of a material nature. In principle, such secondary activities should be separated from their main activity and classified to the activity category proper to them. In practice, this will often not be possible, since data on the cost structure of the secondary activities cannot be obtained. This implies that secondary material output will be included in the output of non-material services, and secondary non-material output in material output, and that entries  $T_{3,2}$  and  $T_{4,1}$  of the SNA matrix of table 1 are assumed to be zero. In the developed matrix set out in table 4 below these entries have therefore been deleted. Similarly, for practical reasons it will normally be necessary to assume that the whole of the output of producers of government services and producers of private services consists of non-material services. Entries  $T_{5,1}$  and  $T_{6,1}$  have therefore also been deleted.

89. The distinction between material and non-material also needs to be made in respect of final consumption expenditure of households and imports and exports. In the developed matrix, rows and columns 7 and 19 of the SNA matrix of table 1 have therefore been sub-divided accordingly.

90. In MPS consumption on housing services is compiled in terms of depreciation and other material cost involved in the provision of these services (including depreciation and other material cost of owner occupied dwellings). In order to enable SNA data to be adjusted to MPS concept it is therefore necessary in the SNA matrix to introduce a separate activity account for the provision of housing services (which includes the ownership of dwellings occupied by their owner).

2. adjustments for differences in the treatment of  
expenditure of enterprises on cultural etc.  
facilities provided to employees

91. In order to allow for adjustments for the differences in the treatment of these expenditure items described in paragraph 38 (i) above, it is necessary in the SNA matrix to separate them from the corresponding expenditure incurred in connexion with the productive activities proper of the units concerned. This has been done by introducing in the matrix a set of dummy account, which collect the total amounts spent in connexion with the provision of cultural facilities, and distributes them between the different categories of producers. In the developed matrix in table 4, these dummy accounts are shown in rows and columns 8, 24, 25 and 26. As a result of the introduction of these dummy accounts the

entries relating to intermediate consumption and the elements of value added of industries and other producers (at the intersection of rows 1, 2, 19, 20 and 3) exclude expenditure incurred in connexion with the provision of cultural facilities. The latter expenditure items appear on separate rows (rows 8, 24, 25 and 26).

3. Adjustments for differences in the treatment of  
cost of travel of employees

92. The differences between the two systems, described in paragraph 38(ii) above call for the separation of this component of intermediate consumption in SNA. For this purpose, another dummy account has been introduced in the developed SNA matrix, which is similar to the dummy accounts for expenditure on cultural facilities (table 4, row and column 9).

4. Adjustments for differences in the treatment of  
unforeseen losses in stocks

93. To the extent that losses in stocks, other than those which are due to normal events in production, are included in SNA intermediate consumption, they should be separated from this heading, so that for purposes of adjustments to MPS concepts, they can be transferred to the MPS category of "losses". Another dummy account, similar to those mentioned before, has therefore been introduced in the matrix (row and column 10). If, in a given country, these losses are included in capital formation in stocks, rather than intermediate consumption, the adjustment to the matrix required would be the sub-division of the row and column for stocks (row and column 30), so as to show the counterpart of losses in stocks separately.

5. Adjustments for differences in the treatment of  
final consumption

94. The differences in the allocation of expenditure between households and government, mentioned in paragraph 54(i) above, make it necessary to show separately in the SNA matrix the elements of final consumption expenditure of resident households, which are not financed by the households themselves (i.e. goods and services financed by government, but when the households are relatively free to select the unit which is to furnish them and the terms in which they are to be supplied). In the developed matrix the rows and columns relating to household goods and services have therefore been further sub-divided (in addition to

the distinction into "material" and "non-material" mentioned in paragraph 89) with a view to showing consumption expenditure financed by government separately (rows and columns 12 and 14 of the developed SNA matrix). In accordance with MPS practices the entries recorded in these rows and columns should be limited to that part of the expenditure in question which is actually financed by the government. If part of the expenditure is financed by households, this part should be included in the relevant entries of rows and columns 11 and 13.

95. In order to permit not only the adjustment of SNA data to MPS concepts and vice versa, but also the derivation from both systems of data corresponding to the concept of total consumption of goods and services by the population (see paragraphs 58 to 67 above), it is necessary to provide in the SNA matrix for the separation of these elements of final consumption expenditure of government and private non-profit bodies which relate to goods and services accruing to the population. In the developed SNA matrix this has been achieved by sub-dividing the rows and columns relating to government purposes and purposes of private non-profit bodies into (i) goods and services accruing to the population; (ii) goods and services serving community needs (rows and columns 15 to 18). The two headings are defined in terms of the relevant purpose classifications of SNA, the first covering the categories of these classifications listed in paragraph 63.

#### 6. Adjustments for differences in the treatment of the elements of value added

96. In the developed matrix, the elements of value added are shown under three main headings (which correspond to those distinguished in SNA): compensation of employees, operating surplus (including net indirect taxes) and consumption of fixed capital. The differences in the treatment of several elements of value added, described in paragraph 83 above, call for the following further subdivisions of these main headings: (i) compensation of employees into: wages and salaries; or employers' contributions to social security and pension funds; (ii) operating surplus into: operating surplus of unincorporated enterprises; and other.

#### 7. Adjustments for differences in the treatment of fixed capital formation and losses on fixed assets

97. Differences between SNA and MPS in the treatment of losses (see paragraph 71(i7)) above, make it necessary to separate under fixed capital formation the

elements which constitute the counterpart of losses. Within counterparts of losses, abandoned construction needs to be shown separately. Furthermore, under fixed capital formation a separate heading for work in progress in construction should be provided for (see paragraph 71(i)).

B. The development of the MPS Matrix

1. Adjustments for differences in the scope of production

98. In order to adjust MPS data to SNA concepts, it is necessary to provide for the separate identification of the relevant flows relating to non-material activities in the MPS matrix.

99. In the MPS matrix shown in table 2, non-material services are shown as a separate heading under "redistribution". It should be noted that in the context of the MPS financial balance the term non-material services does not cover all services of the banking system and insurance services. Insurance services are shown under a separate heading of the financial balance, whereas banking services are included, but not shown separately, under other headings. For purposes of inter-system comparisons, it is necessary to combine all services, other than material services, under the same heading. In the extended MPS matrix, presented in table 5 the row and column for non-material services are therefore defined to include in principle all services, other than material services.

100. The information on non-material activities shown in table 2 does not yet enable the data to be regrouped according to the SNA concepts of gross output and value added. As indicated in paragraph 33 above gross output in SNA is calculated differently for "industries" and "other producers" - including operating surplus for industries and in terms of cost excluding operating surplus for other producers. In MPS therefore units in the non-material sphere, which in the context of SNA would be classified to "industries", should be separated from other units. The distinction between "industries" and "other producers" in SNA corresponds, insofar as the non-material sphere is concerned, to that of MPS between non-budgetary and budgetary units.<sup>1/</sup> In the developed MPS matrix units in the non-material sphere have therefore been sub-divided into these two types of units.

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<sup>1/</sup> It should be noted that budgetary units according to MPS practices include certain types of units which in SNA are classified to industries, notably banks. It would seem, however, that in view of the different organization and function of banks in countries with centrally planned economies, it is justified to treat banks as "other producers" in the SNA sense, and that no adjustment would be required on this point.



101. As indicated in paragraph 43 above, it is proposed that for the purpose of MPS-SNA adjustments the provision of housing services should be valued at cost, rather than in terms of rents paid or received. In order to enable these costs to be identified, it is necessary in the MPS matrix (i) to distinguish units engaged in the provision of housing services as a separate heading under units in the non-material sphere; and (ii) to provide for a separate row and column under the heading population, in which all transactions in respect of the private ownership of dwellings are recorded.

102. Two further differences between SNA and MPS should be mentioned. The first relates to banking services, for which in SNA an imputation is made in terms of the difference between property income received and interest paid.<sup>1/</sup> Since this imputation does not affect comparisons of global aggregates in the two systems, it has been ignored in the framework for inter-system adjustments. The second difference relates to the computation in SNA of the service charges of life insurance companies, which involves an imputation in respect of the net additions to the actuarial reserves. An adjustment for this difference in treatment is not provided for explicitly in the framework, but it is recommended that, if possible, the imputation should be made when MPS data are adjusted to SNA.

2. Adjustments for differences in the treatment of  
expenditure in connexion with the provision of  
cultural etc. facilities to employees

103. In view of the differences between SNA and MPS mentioned in paragraph 38(i) above, it is necessary to identify in the MPS matrix expenditure by units in the material and non-material sphere in connexion with the provision of cultural etc. facilities to employees. This has been done by introducing an additional row and column under the heading transfers (table 5, row and column 10). The entries in row 10 show the amounts spent. In column 10 the total of these amounts is transferred to budgetary units serving the population (entry 20/10).<sup>2/</sup>

<sup>1/</sup> See SNA, paragraphs 6.32 to 6.35.

<sup>2/</sup> Though the actual or notional units through which the provision of cultural facilities is routed may not be budgetary units in the strict sense, it is convenient for the purpose of inter-system adjustments to include them under this heading.

3. Adjustments for differences in the treatment of  
cost of travel of employees

104. The differences in the treatment of cost of travel of employees, referred to in paragraph 38(ii) above call in the first place for the separate identification of the total amounts spent by enterprises and other units. In MPS these amounts are included in primary income of the population and wages and salaries of employees in the non-material sphere. In the developed matrix, the rows and columns relating to these flows have therefore been sub-divided. The entries in row 6 show the amounts spent on travel of employees by units in the material sphere, the entries in row 16, those spent by units in the non-material sphere. In the corresponding columns, these amounts are transferred to the population.

105. Expenditure incurred on official travel is also included in the items relating to expenditure on goods and services by the population, and should be removed from these items for the purpose of adjustments to SNA concepts. In the developed matrix, the rows and columns for non-material services and personal consumption have been sub-divided accordingly.

4. Adjustments for differences in the treatment of  
depreciation

106. In order to enable depreciation to be treated as an element of value added, as required for MPS-SNA adjustments, it should be shown separately in the matrix. This has been done by adding a row "depreciation" under the heading of goods and material services (table 5, row 2). The entries at the intersections of this row with column 3 and with columns 28 to 31 show depreciation in the material and in the non-material sphere respectively. In the negative entry at the intersection with column 32 the total amount of depreciation in both spheres is then deducted, so that the sum of entries in row 2 is zero, and there is no entry in column 2. As a result of the addition of row 2 the entries in row 1 are now redefined as follows:

- the entry at the intersection with column 3: material cost in the material sphere excluding depreciation
- the entries at the intersection with columns 29 to 31: material consumption in the non-material sphere, excluding depreciation
- the entry at the intersection with column 32: gross fixed capital formation.



5. Adjustments for differences in the treatment of  
final consumption

107. Apart from the adjustments already mentioned in connexion with other items, one further adjustment is required. With a view to enabling MPS data to be adjusted to the SNA concept of final consumption expenditure of resident households, it is necessary to show in the matrix direct imports and exports of households as a separate item. This calls for a sub-division of the rows and columns for the rest of the world.

108. As mentioned before, material consumption of units engaged in the provision of housing services is recorded in MPS not as consumption of these units, but as personal consumption. With a view to showing the flows resulting from this reallocation of expenditure explicitly in the matrix, the following further sub-divisions have been introduced: (i) under "personal consumption", the material cost of housing services included has been separately identified (row and column 28); and (ii) under "transfers", a separate heading has been introduced which shows the transfers resulting from the allocation of the material cost of housing to the population (row and column 11). The contents of the different entries in these rows and columns is as follows: 1/28: goods and material services entering the provision of housing services; 2/28: depreciation of rented dwellings; 28/26: material cost of housing services allocated to the population; 11/21: expenditure by units providing housing services on goods and material services and depreciation of these units (recorded as a transfer made) and 26/11: the corresponding transfer received by the population. The treatment adopted implies that there is no entry in cell 30/21.

6. Adjustments for differences in the treatment of  
capital formation and losses

109. The differences in the treatment of capital formation and losses mentioned in paragraph 71 above call for the following adjustments in the MPS matrix (i) separate identification under capital formation of work in progress in construction; and (ii) sub-division of losses into: abandoned construction; other losses in fixed assets; and losses in stocks.

VI. THE RELATIONSHIP BETWEEN CORRESPONDING AGGREGATES  
 IN THE TWO SYSTEMS

110. The developed matrices of SNA and MPS set out in tables 4 and 5 provide the elementary flows to the two systems which can be grouped alternatively into the main aggregates of SNA and MPS and therefore provide a direct basis for the comparison of the composition of these aggregates. This is done in table 6a and b and 7a and b which complete the conceptual framework for inter-system comparisons.

111. Tables 6a and 6b show the relationship between the main aggregates in terms of the elementary flows of SNA. They provide a basis for adjusting SNA aggregates to MPS concepts. Tables 7a and 7b do the same, but in terms of the elementary flows of MPS and are intended to provide the basis for MPS-SNA adjustments.<sup>1/</sup> The SNA and MPS tables are presented in similar form but they differ as regards the detailed components of the SNA and MPS aggregates shown. The differences stem from the fact that the adjustments needed differ according to whether SNA data are converted into MPS aggregates, or vice versa.

112. The contents of the adjustment tables are described below.

A. Adjustments of SNA data to MPS concepts

113. Gross output in SNA is defined to include the value of all goods and services produced, i.e. it covers all entries in rows 3 to 7 of the developed SNA matrix (plus import duties: entries 22/1 and 22/2). Global output in MPS is limited to the output of goods and material services (3/1 + 22/1). The relationship between SNA gross output and MPS global product therefore is:

$$\begin{array}{r}
 \text{SNA gross output} \\
 = \text{MPS global product} \\
 + \text{Gross output of non-material} \\
 \quad \text{services}
 \end{array}
 \begin{array}{r}
 3-7/x \\
 22/1,2 \\
 3/1 \\
 22/1 \\
 4-7/x \\
 22/2
 \end{array}$$

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<sup>1/</sup> The entries shown in the different cells of the tables refer to the rows and columns of the matrices in tables 4 or 5 in which the corresponding items appears. The figures before the / relate to the row numbers of the matrix in question and the figures after the / to the numbers of columns. An x instead of a figure indicates that all entries in the row or column in question are included.

114. The relationship between the SNA and MPS concepts may also be expressed in the following alternative forms.

(i) In terms of the disposition of goods and services:

SNA gross output	1,2/x -38/1 -39/2 6/13,15,16 7/13,14,17,18
= MPS global product	1/x -38/1
+ Non-material services used	2/x -39/2 6/13,15,16 7/13,14,17,18

(ii) In terms of inputs:

SNA gross output	x/3-7 22/1,2
= MPS global product	x/3 22/1
+ Inputs into non-material services	x/4-7 22/2

115. Table 6a studies the relationship SNA and MPS from the first point of view, and table 6b from the second.

1. Gross output/global product, intermediate consumption and final expenditure  
 (table 6a)

116. The headings of the rows of table 6a show the composition of gross output in SNA, in terms of the main disposition categories: intermediate consumption; final consumption expenditure of resident households; other final consumption expenditure; gross fixed capital formation; capital formation in stocks; and exports minus imports. Similarly the headings of the rows show the main categories to which MPS global product is disposed of: material cost; personal consumption; other consumption; net fixed capital formation; capital formation in stocks; losses and exports minus imports. In addition, the columns at the righthand side of the table show the main categories of the disposition of

Table 6 Relationship between SNA and MPS aggregates in terms of SNA flows  
 Table 6a Gross output/global product, intermediate consumption and final expenditure

MPS aggregates and sub-divisions		Global product $\frac{1}{2} \left. \begin{matrix} 1/2 \\ -38/3 \end{matrix} \right\} = 3,22/2$											Value or cost of non-material services $\frac{4}{2} \left. \begin{matrix} 6/13,15,16 \\ -37/2 \end{matrix} \right\} = 4-7/2$						Direct imports and exports of households					
		Material cost		Final consumption					Capital formation			Losses			Exports minus imports	Cost of services of other producers minus sales of services	Exports minus imports of non-mat. services							
		intermediate consumption	depreciation	Persons consumption		Other			net fixed cap formation	Stocks		in fixed assets	In stocks					Exports minus imports			Forepurchases of non-mat services by units in the mat. sphere	by units in the non-mat. sphere	by the population	Other
				mat exp on official travel	mat cost of housing services	Other	mat cost of cult facilities	depreciation in non-mat sphere		Other	work in progress in constr		Other	abandoned constr	Other									
		1/3	23/3	1/9	1,23/4	1/11	1/8	23/3-7	1/5-7,12	1/34	1/33	1/30	1/31	1/32	1/10	1/38	2/3	2/4-8,14	2/9	2,6,7/13	6/15,16	2/39		
Gross output	Intermediate consumption	1/3-10	2/3-9	38,39/6	1/3	1/9	1/1	1/8	1/5-7	38/6					1/10			2/3	2/4-8	39/6	2/9			
1,2/x	Final consumption expenditure of households	1,38/11	2,6,7,39/13				1/11														2,6,7/13		38/11	
-38/1	- financed by households	-11/38	-13/39																				-1/38	
6/13,15,16	- financed by govt. and included in household expenditure	1/12	2,7/14					1/12										2/14			7/14		-13/39	
7/13,14,17 18	Other final consumption expenditure	6,15,16	7/17,18																		6,15,16		7/17,18	
=	Fixed capital formation																							
3-7/x	- counterpart of cap consumption	23,26/3-7	23/4	23/4			26/3-7	22/2-7																
22/1,2	- counterpart of losses	1/31											1/31											
	- abandoned construction	1/32												1/32										
	- work in progress in construction	1/33								1/33														
	- Other	1/34	-23,26/3-7						1/34	-23,26/3-7														
	Capital formation in stocks	1/30									1/30													
	Exports minus imports	1,11/38	-38/1,6,11	2,13/39												1/38	-38/1,6						2/39	11/38
		-39/2,6,13																					-39/2,6	13/39
																							-38/11	-39/13

non-material services, which in MPS are not included in the disposition of ~~global product~~, but are treated as redistribution. Both in the case of the SNA and the MPS, the main disposition categories are further sub-divided, with a view to showing separately those elements of the categories which are treated differently in the two systems.

117. The entries in the cells of the table, which refer to the elementary flows of SNA identified in table 4, show the ways in which the elements of the SNA categories are treated in MPS, and the adjustments which are needed in order to adjust SNA data to MPS concepts.

118. The details shown in the columns at the righthand side of the table, are given in order to give a relatively comprehensive picture of the relationship between the two systems. It should be noted that for purposes of SNA-MPS adjustments information is required only in respect of the sum of the entries appearing in each row in this part of the table, and not necessarily in respect of each individual entry.

2. Gross output/global product and gross input  
(table 6b)

119. The presentation of this table is similar to that of table 6a. The rows show the main categories of gross input as they appear in SNA: intermediate consumption; compensation of employees; operating surplus (which for the purpose of inter-system comparisons is defined to include indirect taxes minus subsidies) and consumption of fixed assets. The columns at the left-hand side relate to the gross input categories of MPS: material cost; primary income of the population; and primary income of enterprises. As in the case of table 6a, the columns at the righthand side relate to flows which in MPS are treated as redistribution: they show material consumption and income originating in the non-material sphere.

120. The relationship between the SNA and MPS concepts, and the adjustments needed for converting SNA data to MPS concepts can be seen from the entries in the table.



B. Adjustments of MPS data to SNA concepts

121. Global product in MPS is defined to include goods and material services only, i.e. it includes only the entries in cell 3/1 of the developed MPS matrix. Gross output, as defined in SNA includes in addition the value of non-material services produced. The latter component of the SNA concept is not shown explicitly in the MPS matrix, but can be derived from it, by regrouping various entries. The operations involved are the following:

- (i) Gross output of non-material services rendered by non-budgetary units:

These units are in SNA classified to "industries". Their gross output is calculated in terms of the value of services sold, i.e. it covers the entries 22/13, 22/14, and 24/14.

- (ii) Gross output in the provision of housing services:

In SNA, gross output in respect of rented dwellings is calculated in terms of the gross rents received; in respect of owner occupied dwellings, an imputed rent is calculated. For the purpose of inter-system comparisons, however, it is proposed that housing services should be valued in terms of cost rather than rents. It would then include the following entries of the MPS matrix:

- Units providing housing services

Wages and salaries	17/21
Employers' contribution to social security	9/21
Travel cost of employees of these units	16/21
Cost of provision of cultural facilities to employees	10/21
Non-material services bought	14/21
Material consumption (in MPS allocated to personal consumption)	28/26

- Owner occupied dwellings

Non-material services	14/25
Material consumption	29/25

## (iii) Gross output of other budgetary units:

In SNA, these units are classified to "other producers", and their gross output is valued in terms of cost. It includes the following MPS flows:

Wages and salaries	17/20,23
Employers' contribution to social security	9/20,23
Travel cost of employees	16/20,23
Cost of the provision of cultural facilities	10/20,23
Non-material services bought	14/20,23
Material consumption	30/20; 31/23

In MPS, expenditure incurred by units in the material and non-material sphere in connexion with the provision of cultural etc. facilities to employees are routed through the non-material sphere, and included in the cost of elements listed above. In SNA, the cost of these facilities are not included in gross output of services. The transfer received by budgetary units from units in the material and non-material sphere (10/19-24) should therefore be deducted from these costs, when gross output as defined in SNA is calculated.

(iv) Gross output of non-material services, according to SNA definitions, is then equal to the sums of the entries listed under (i) to (iii) above, and include the following MPS flows: 22/13; 22,24/14; 9,10,14,16,17,30/20; 9,10,14,16,17/21; 9,10,14,16,17,31/23; 14,29/25; 28/26; -10/19-24.

122. MPS global product may also be expressed in the following alternative forms, which reflect the composition of gross output in terms of the disposition of goods and material services and the inputs into the global product respectively:

Disposition of global product	1/x -38/1
Inputs into global product	x/3



Similar alternative forms may also be given for the value or cost of non-material services:

Value or cost of non-material services rendered (= S)	Value or cost of non-productive services used (= S')	Inputs into non-material services (= S'')
22/13	13/36	1,2/28,30,31
22,24/14	14/19-26,40	29/25
9,10,14,16,17,30/20	-21,40/14	9,10/20-24
9,10,14,16,17/21	9,10,14,16,17,30/20	14/20-25
9,10,14,16,17,31/23	9,10,14,16,17/21	15/22,24
14,29/25	9,10,14,16,17,31/23	16,17/20-24
28/26	14,29/25	22/13 <u>1/</u>
-10/19-24	28/26	22,24/14 <u>1/</u>
	-10/19-24	-9,10,14-17,30/22 <u>1/</u>
		-9,10,14-17,31/24 <u>1/</u>
		-10/19-24

123. The relationships between the MPS and SNA concepts can therefore be expressed in the following forms:

(i) In terms of goods and services produced:

MPS global product	3/1
+ Value or cost of non-material services rendered	S
= SNA gross output	3/1 + S

(ii) In terms of the disposition of goods and services:

MPS global product	1/x -38/1
+ Value or cost of non-material services used	S'
= SNA gross output	1/x -38/1 + S'

(iii) In terms of inputs:

MPS global product	x/3
+ (Gross inputs into non-material services	S''
= SNA gross output	x/3 + S''

124. Table 7a studies the relationship between MPS and SNA from the first point of view, table 7b from the second.

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1/ These items represent the computed operating surplus of non-budgetary units in the non-material sphere (see paragraph 128 below).

1. Global output/gross product, material cost  
and final expenditure  
(table 7a)

125. The column headings at the lefthand side of the table show the global product as defined in MPS and the main categories to which it is disposed of: material cost; personal consumption; other final consumption; net fixed capital formation; capital formation in stocks; losses and exports minus imports. The headings of the rows relate to gross output in the SNA sense, and the main SNA categories of the disposition of goods and services: intermediate consumption; final consumption expenditure of resident households; other final consumption expenditure; gross fixed capital formation; capital formation in stocks and exports minus imports. Since the SNA concepts cover various flows not included in MPS global product and its components, it is necessary to include in the table various categories of flows which in MPS are treated as part of the redistribution process. These flows are shown in the columns of the righthand side of the table. They relate to the cost or value of non-material services and their disposition. As the purpose of this table is to provide a basis for adjustments from MPS concepts to SNA concepts the selection of the redistributive flows needed to be made in the light of the treatment of the particular flows in the context of SNA, i.e. only those flows are shown, which are needed in order to compile gross output of non-material services according to SNA concepts. The breakdown in the headings of these columns corresponds to the different parts of SNA gross output of non-material services which need to be compiled separately, as described in paragraphs 121-123 above. Both in the case of SNA and of MPS the main categories of global product/gross output are further sub-divided with a view to showing elements which are treated differently in the two systems in separate cells.

126. The entries in the cells of the table, which refer to the elementary flows of MPS identified in table 5, show the ways in which the elements of MPS aggregates and flows are treated in SNA, and the adjustments required in order to adjust MPS data to SNA concepts.



2. Global product/gross output and gross input  
(table 7b)

127. The presentation of table 7b is similar to that of table 7a. The columns at the left part of the table show the main categories of gross input as adopted in MPS: material cost; primary income of the population and primary income of enterprises; and the rows relate to the corresponding categories of SNA: intermediate consumption; compensation of employees; operating surplus (including indirect taxes net of subsidies) and consumption of fixed capital. As in the case of table 7a, at the righthand side the table includes a number of columns relating to various redistribution flows, which are covered by SNA gross output and its components, but not by MPS global product. Furthermore, a row has been added relating to expenditure on the provision of cultural facilities to employees. The latter parts of the table need to be further explained.

128. The total value or cost of non-material services, to which the sum of entries in the righthand side of the table add up is the same as in table 7a. However, the breakdown by categories is in terms of inputs into non-material services rather than in terms of the disposition of the services. The elementary flows of the developed MPS matrix provide all elements for the calculation of intermediate consumption and compensation of employees in the non-material sphere as defined in SNA. In order to arrive at total value added as defined in SNA, it is necessary to add to compensation of employees the operating surplus of the non-budgetary units in the non-material sphere. This operating surplus is not shown in the MPS matrix but can be derived from it by deducting from the value of services sold by the units concerned (22/13; 22,24/14) the following items of expenditure:

(i) wages and salaries	17/22,24
(ii) employers' contributions to social security	9/22,24
(iii) expenditure on travel of employees	16/22,24
(iv) cost of the provision of cultural facilities to employees	10/22,24
(v) non-material services bought	14/22,24
(vi) material consumption	30/22; 31/24



The residual (22/13; 22,24/14; -9,10,14,16,17,30/22; -9,10,14,16,17,31/24) consists of two parts: income of private enterprises (15/22,24) and other operating surplus of non-budgetary units (22/13; 22,24/14; -9,10,14-17,30/22; -9,10,14-17,31/24).

129. Expenditure incurred in connexion with the provision of cultural facilities appears twice in the row showing the composition of the various MPS aggregates: first as an element of the income or expenditure of the units concerned (items 10/19, expenditure in the material sphere; and 10/20-24, expenditure of units in the non-material sphere) and second as cost elements of the budgetary units through which the provision of the cultural facilities is routed (part of the items 9,10,14,16,17,30/20). In SNA, the cost elements of the cultural facilities are treated as intermediate and primary input of the units which provide the facilities to their employees, and do not enter gross output of services.<sup>1/</sup> In order to arrive at the correct total of gross output, and gross output of non-material services, according to SNA concepts, a column is needed under the heading of redistribution to MPS, in which the expenditure incurred by units in the material and non-material sphere in the provision of cultural facilities is deducted. The last row of the table has a similar role. It has been introduced in order to avoid that the expenditure of cultural facilities are distributed twice to SNA categories: first as expenditure of the units providing the facilities, and then as cost of the units in the non-material sphere through which the provision of the facilities is routed.

## VII. PROPOSED ADJUSTMENT AND SIMILAR TABLES

130. The purpose of this section of the report is to present proposals concerning the tables for adjusting SNA data to MPS concepts and vice versa, that countries might be recommended to compile at periodic intervals.

### A. Adjustment tables relating to the main aggregates in the two systems

131. Tables 6a and b and 7a and b set out in the previous section of this report may constitute themselves a suitable form for the presentation of SNA

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<sup>1/</sup> An exception to this is the situation where the cultural facilities are of individual and clear and direct benefit to the employees as consumers. In this case the expenditure on the services in question are treated as payments of wages and salaries in kind and included in final consumption and gross output. As this is not likely to be the common situation, it has been disregarded in the tables.

data according to MPS concepts and of MPS data according to SNA concepts respectively. However, they are mainly intended to describe the relationship between the two systems and include an amount of detailed information which is not directly needed for inter-system adjustments of the main aggregates. An alternative form of presentation is therefore given in tables A and B below.

132. Table A relates to adjustments of SNA data to MPS concepts. It consists of three parts: Table  $A_1$ , shows the adjustments needed in adjusting SNA gross output, intermediate consumption and gross domestic product to MPS global output, material cost and national income. Tables  $A_2$  and  $A_3$  relate to the adjustment of the categories of final expenditure and value added respectively. Table B provides the basis for adjustments of MPS data to SNA concepts. It also consists of three parts, which correspond to tables  $A_1$ ,  $A_2$  and  $A_3$ , but show, of course, the adjustments in the other direction.

133. The entries in the tables are identified in terms of the elementary flows of the SNA and MPS developed matrix respectively. The contents of each of the adjustment flows can be seen directly by comparing the tables with tables 6a and b and 7a and b.

#### B. Supplementary tables

134. In addition to the adjustment tables proper, it would seem desirable in the context of inter-system comparisons to provide for one or more tables relating to concepts which are not used as such in the systems (or not in both systems), but which may be regarded as of particular interest for comparisons between countries with different systems.

135. An example of such a concept is that of total consumption of the population, which covers the total value of goods and services (non-material as well as material) accruing to households, irrespective of whether the expenditure on the goods or services is financed out of the income households or otherwise. This concept is not used in SNA. It does not appear in the main tables of MPS either, but is referred to in the text of the MPS document as a supplementary concept. For the purpose of inter-system comparisons, however, some adaptations of the MPS concept are desirable.

Adjustment table A  
 Adjustments from SNA aggregates to MPS aggregates  
 (In terms of SNA flows)  
 A1. Gross output and intermediate consumption

Adjustments	SNA aggregates		
	Gross output	Intermediate consumption	Gross domestic product
	$\left. \begin{array}{l} 1,2/x \\ 6/13,15,16 \\ x/3-7 \\ 22/1,2 \\ -38/1 \\ -39/2 \end{array} \right\} = 7/13,14,17,18$	$\left. \begin{array}{l} 1,2,8,9/3-7 \\ 10/3 \\ 38,39/6 \end{array} \right\} = 2/3-9$	$\left. \begin{array}{l} 1/11,12,30-34,38 \\ 19,20,23-26/3-7 \\ 21/3-5 \\ 22/1-5 \end{array} \right\} = 6/13,15,16$ $\left. \begin{array}{l} 2/13,14,39 \\ 7/13,14,17,18 \\ -38/1,6 \\ -39/2,6 \end{array} \right\}$
1. Gross output of			
(a) Industries in the non-material sphere	- x/4,5 - 22/2		- x/4,5 - 22/2
(b) Other producers	- x/6,7		- x/6,7
2. Intermediate consumption of			
(a) Industries in the non-material sphere		- 1,2,8,9/4,5	+ 1,2,8,9/4,5
(b) Other producers		- 1,2,8,9,38,39/6 - 1,2,8,9/7	+ 1,2,8,9,38,39/6 + 1,2,8,9/7
3. Input of non-material services of industries in the material sphere		- 2/3	+ 2/3
4. Expenditure on travel of employees, paid by industries in the material sphere		- 9/3	+ 9/3
5. Expenditure on the provision of cultural etc. facilities of industries in the material sphere		- 8/3	+ 8/3
6. Consumption of fixed capital of industries in the material sphere (excluding consumption of fixed capital on provision of cultural services)		+ 23/3	- 23/3
7. Losses in stocks other than losses due to normal events in production		- 10/3	+ 10/3
	$\left. \begin{array}{l} x/3 \\ 22/1 \end{array} \right\} = 1/x$ $\left. \begin{array}{l} 1/x \\ -38/1 \end{array} \right\} = -38/1$	1,23/3	$\left. \begin{array}{l} 2,8-10,19-22, \\ 24-26/3 \\ 22/1 \end{array} \right\} = 1/4-12,30-34,38$ $\left. \begin{array}{l} -38/1 \\ -23/3 \end{array} \right\}$
	Global product	Material cost	National income
	MPS aggregates		



Adjustment table A (cont'd)  
Adjustments from SNA aggregates to MFS aggregates  
(In terms of SNA flows)

A2 Final disposition

Adjustments	SNA aggregates							Exports minus imports	Gross domestic products
	Final consumption of expenditure of resident households	Other final consumption expenditure	Gross fixed capital formation	Capital formation in stocks					
	1/11,12 2,6,7/13 2,7/14 38/11 39/13 -11/38 -13/39	6/15,16 7/17,18	1/31-34	1/30			1,11/38 2,13/39 -38/1,6,11 -39/2,6,13	1/11,12,30-34,38 2/13,14,39 6/13,15,16 7/13,14,17,18 -38/1,6 -39/2,6	
1. Expenditure on non-material services by households									
(a) commodity type services	-2/13							-2/13	
(b) other services	-6,7/13							-6,7/13	
2. Final consumption expenditure of households financed by government	-1/12 -2,7/14	+1/12						-2,7/14	
3. Direct exports of households, net of imports	-38/11 -39/13 +11/38 +13/39						+38/11 +39/13 -11/38 -13/39		
4. Material input into the provision of housing services (including owner occupied dwellings)	+1,23/4							+1,23/4	
5. Expenditure on material goods on official travel	+1/9							+1/9	
6. Cost of services produced for own use by government services and private non-profit services		-6/15,16 -7/17,18						-6/15/16 -7/17,18	
7. Material input of									
(a) Industries in the non-material sphere (excluding ownership of dwellings)		+1/5						+1/5	
(b) other producers		+1/6,7 +38/6						+1/6,7 +38/6	
8. Expenditure on the provision of cultural facilities (industries and other producers)									
(a) goods and material services		+1/8						+1/8	
(b) cons. of fixed capital		+26/3-7						+26/3-7	
9. Consumption of fixed assets in the non-material sphere		+23/5-7						+23/5-7	
10. Consumption of fixed assets			-23,26/3-7					-23,26/3-7	
11. Adjustments in respect of capital formation									
(a) losses in fixed assets			-1/31		+1/31				
(b) abandoned construction			-1/32			+1/32			
(c) work in progress in construction			-1/33	+1/33					
(d) losses in stocks						+1/10		+1/10	
12. Net exports of non-material services							-2/39 +39/2,6	-2/39 +39/2,6	
	1/4,9,11 23/4	1/5-8,12 23/5-7 26/3-7 38/6	1/34 -23,26/3-7	1/30,33	1/31	1/10,32	1/38 -38/1,6	1/4-12,30-34,38 -38/1 -23/3	
	Personal consumption	Other final consumption	Net fixed capital formation	Capital formation in stocks	Losses in fixed assets	Losses in stocks	Exports minus imports	National income	
MFS aggregates									

Adjustment table A (cont'd)  
 Adjustment from SNA aggregates to MPS aggregates  
 (In terms of SNA flows)  
 A3 Composition of value added

	S N A aggregates			
	Compensation of employees	Operating surplus (including net indirect taxes)	Consumption of fixed capital	Gross domestic product
	19,20,24,25/3-7	21/3-5 22/1-5	23,26/3-7	19,20,23-26/3-7 21/3-5 22/1-5
1. Compensation of employees in the non-material sphere				
(a) Industries in the non-material sphere	-19,20,24,25/4,5			-19,20,24,25/4,5
(b) Other producers	-19,20,24,25/6,7			-19,20,24,25/6,7
2. Operating surplus of industries in the non-material sphere		-21/4,5 -22/2,4,5		-21/4,5 -22/2,4,5
3. Employers contributions to social security and private pension funds of industries in the material sphere	-20,25/3	+20,25/3		
4. Expenditure on travel of employees of industries in the material sphere	+9/3			+9/3
5. Operating surplus of unincorporated enterprises in the material sphere	+21/3	-21/3		
6. Input of non-material services of industries in the material sphere (excluding services used in the provision of cultural etc. facilities)		+2/3		+2/3
7. Expenditure in connexion with the provision of cultural etc. facilities, of industries in the material sphere				
(a) Intermediate consumption		+8/3		+8/3
(b) Wages and salaries	-24/3	+24/3		
(c) Consumption of fixed capital		+26/3		+26/3
8. Consumption of fixed capital (industries and other producers)			-23,26/3-7	-23,26/3-7
9. Losses in stocks other than losses due to normal events in production		+10/3		+10/3
	9,19,21/3	2,8,10,20,22,24-26/3 22/1		8-10,19-22,24-26/3 22/1
	Primary income of the population	Primary income of enterprises		National income
	M P S aggregates			

Adjustment table B  
 Adjustments from MFS aggregates to SNA aggregates  
 (In terms of MFS flows)  
 B) Global product and material cost

Adjustments	M.P.S. aggregates		
	Global product	Material cost	National income
	3/1 = 1/x = x/3 -38/1	1,2/3	1/27-38) -38/1 ) = 5-8/4 -2/3
1. Gross output of services of non-budgetary units, other than units providing housing services	+22/13 ) (+13/26 +22,24/14) = (+14/19-26,40 (-21,40/14		+22/13 ) (+13/26 +22,24/14) = (+14/19-26,40 (-21,40/14
2. Cost of housing services			
(a) provided by units in the non-material sphere	+9,10,14,16,17/21 +28/26		+9,10,14,16,17/21 +28/26
(b) owner occupied dwellings	+14,29/25		+14,29/25
3. Cost of services of budgetary units	+9,10,14,16,17,30/20 +9,10,14,16,17,31/23		+9,10,14,16,17,30/20 +9,10,14,16,17,31/23
4. Material consumption of units in the non-material sphere (excluding depreciation)			
(a) units providing housing services		+1/28	-1/28
(b) other		-1/30,31	-1/30,31
5. Non-material services bought by			
(a) units in the material sphere		+14/19	-14/19
(b) units in the non-material sphere		+14/20-24	-14/20-24
6. Expenditure in connexion with owner occupied dwellings			
(a) material (excluding depreciation)		+29/25 -2/29	-29/25 +2/29
(b) non-material		+14/25	-14/25
7. Expenditure on travel on official business			
(a) material		+27/26 (= +1/27)	-1/27
(b) non-material		+13/26 (= +22/13)	-22/13
8. Depreciation in the material sphere		-2/3	+2/3
9. Transfers received by the non-material sphere from units in the material and non-material sphere for the provision of cultural facilities to employees	-10/19-24		-10/19-24
10. Losses in stocks other than those due to normal events in production		+1/37	-1/37
		1/3,27,28,30,31,37 13/26 14/19-25 29/25 -2/29	14,29/25,26 ) 5,7,8/4 -21/14 ) 9/19-24 9,10,14,16,17,21 ) 17/20-24 28/26 ) 22/13 9,10,14,16,17,30/20 ) 22,24/14 9,10,14,16,17,31/23)= -10/19-24 ) -9,10,14,16 1/32-36 ) 17,30/22 1/38 ) -9,10,14,16 -38/1 ) 17,31/24 14/10 ) -9,10,14, -40/14 ) 37/19 ) 2/3,28-31
	Gross output	Intermediate consumption	Gross domestic product
	SNA aggregates		

Adjustment table E (cont'd)  
Adjustment from MES aggregates to SNA aggregates  
(in terms of MPS flows)

B2 Final disposition

E/CN.3/397/  
English  
Rev.1  
Page 68

	MPS aggregates							National income
	Personal consumption	Other final consumption	Net fixed capital formation	Stocks	Losses in fixed assets	Losses in stocks	Exports minus imports	
	29/25 27-29/26 = 1/27-29 2/23,29	30/20,22 31/23,24 = 1,2/30,31	1,2/32	1/33,34	1/36	1/35,37	1/38 - 38/1	1/27-38 - 38/1 - 2/3
1. Purchases of non-material services by households (other than housing services)	+14/26 -21/14							+14/26 -21/14
2. Cost of housing services								
(a) provided by units in the non-material sphere	+9,10,14,16,17/21 +28/26							+9,10,14,16,17/21 +28/26
(b) owner occupied dwellings	+14,29/25							+14,29/25
3. Material expenditure on official travel	-27/26							-27/26 = -1/27
4. Material cost of housing services allocated to households	-29/25 -28/26							-29/25 ) -28/26 ) -1,2/28-31
5. Final consumption expenditure of units in the non-material sphere		-30/20,22 -31/23,24						-30/20,22) = +29/26 -31/23,24)
6. Cost of services of budgetary units		+9,10,14,16,17,30/20 +9,10,14,16,17,31/23						+9,10,14,16,17,30/20 +9,10,14,16,17,31/23
7. Consumption of fixed capital			+2/3,28-31 = -2/32					+2/3,28-31
8. Adjustments in respect of capital formation								
(a) work in progress in construction			+1/33	-1/33				
(b) abandoned construction			+1/35					
(c) losses in fixed assets			+1/36		-1/36			
(d) losses in stocks						-1/37		-1/37
9. Exports minus imports								
(a) non-material services							+14/40 -40/14	+14/40 -40/14
(b) direct exports and imports of households	+39/12 -12/39						+12/39 -39/12	
10. Transfers by units in the material and non-material sphere to the non-material sphere for the provision of cultural facilities		-10/19-24						-10/19-24
	14,29/25,26 -21/14 9,10,14,16,17/21 28/26 39/12 -12/39	9,10,14,16,17,30/20 9,10,14,16,17,31/23 -10/19-24	1/32,33,35,36	1/34	-	-	1/38 12/39 14/40 -38/1 -39/2 -40/14	14,29/25,26 -21/14 9,10,14,16,17/21 28/26 9,10,14,16,17,30/20 9,10,14,16,17,31/23 -10/19-24 1/32-36 1/38 38/1 14/40 -40/14
	Final consumption expenditure of resid. households	Other final consumption expenditure	Gross fixed capital formation	Capital formation in stocks	-	-	Exports minus imports	Gross domestic product
SNA aggregates								

Adjustment table B (cont'd)  
Adjustment from IFS aggregates to SNA aggregates  
(In terms of IFS flows)

B3 Components of value added

Adjustments	IFS aggregates			
	Primary income of the population	Primary income of enterprises	-	National income
	5-7/4	8/4		5-8/4 = 4/3
1. Wages and salaries paid by units in the material sphere	+17/20-24			+17/20-24
2. Income from private plots and private enterprises				
(a) material sphere	-5/4	+5/4		
(b) non-material sphere		+15/22,24		+15/22-24
3. Operating surplus of non-budgetary units in the non-material sphere (other than income from private enterprises)		+22/13 +22,24/14 -9,10,14-17,30/22 -9,10,14-17,31/24		+22/13 +22,24/14 -9,10,14-17,30/22 -9,10,14-17,31/24
4. Employers contributions to social security				
(a) material sphere	+9/19	-9/19		
(b) non-material sphere	+9/20-24			+9/20-24
5. Travel cost paid by employers in the material sphere	-6/4			-6/4
6. Use of non-material services in the material sphere		-14/19		-14/19
7. Consumption of fixed capital			+2/3,28-31	+2/3,28-31
8. Expenditure on the provision of cultural facilities in the material sphere		-10/19		-10/19
9. Losses in stocks other than losses due to normal events in production		-37/19		-37/19
	7/4 9/19-24 17/20-24	5,8/4 22/13 22,24/14 -9,10,14,37/19 -9,10,14,16,17,30/22 -9,10,14,16,17,31/24	2/3,28-31	5,7,8/4 9/19-24 17/20-24 22/13 22,24/14 -9,10,14,16,17,30/22 -9,10,14,16,17,31/24 -9,10,14,37/19 2/3,28-31
	Compensation of employees	Operating surplus (including net indirect taxes)	Consumption of fixed capital	Value added
	SNA aggregates			

136. Tables  $C_1$  and  $C_2$  below suggest the form in which supplementary tables on total consumption of the population might be presented. In table  $C_1$  this concept is derived from the elementary flows of SNA as set out in table 4, and in table  $C_2$  from the elementary flows of MPS as shown in table 5. The coverage of the concept of total consumption of the population used in these tables corresponds to the description given in paragraphs 58 and following of this report.

137. As pointed out in paragraph 63 above, it is recommended that in the context of SNA the range of goods and services to be included in total consumption of the population should be defined in terms of the purpose classifications of the systems, whereas in the context of MPS it will need to be based on the kind of activity classification. In table  $C_2$ , the whole of current expenditure of the budgetary units serving the population as defined in MPS is allocated to consumption of the population, on the assumption that the activities of these units correspond to the purpose categories of SNA listed in paragraph 63 above. In actual comparisons this assumption should, however, be checked, and further adjustments should be made to the MPS data if it appears that there are significant differences between the activities of budgetary units serving the population in MPS and the purpose categories in question in SNA. The kind of activity classification of MPS provides the basis for those further adjustments.

## Adjustment table C

## Total consumption of the population

C<sub>1</sub>. Derived from the elementary flows of SNA

1. Final consumption expenditure of resident households	11 -14/29	(= 1,38/11 1/12 2,6,7,39/13 2,7/14 -11/38 -13/39)
* 2. Cost of services produced by producers of government services and producers of private services accruing to households (and not included in final consumption expenditure of resident households)	15,17/29	
* 3. Expenditure by employers on cultural etc. facilities provided to their employees	8,24-26/3-7	
* 4. Expenditure by employers on travel of their employees	9/3-7	
- 5. Adjustment to the concept of consumption expenditure in the domestic market (direct imports minus direct exports of households)	-38/11 -39/13 +11/38 +13/39	
6. Total consumption of the population (in the domestic market)	11-15,17/29 8,9,24-26/3-7 11/38 13/39 -38/11 -39/13	

Adjustment table C (cont'd)  
 C<sub>2</sub>. Derived from the elementary flows of MPS

1. Personal consumption as defined in MPS	29/25 27-29/26
+ 2. Purchase of non-material services by the population (other than housing services)	+13,14/26 -21/14
+ 3. Non-material cost of housing services	
(a) rented dwellings	+9,10,14,16,17/21
(b) owner occupied dwellings	+14/25
+ 4. Cost of goods and services accruing to the population financed from other sources	
(a) material cost	+30/20
(b) other cost	+9,10,14,16,17/20
= 5. Total consumption of the population	29/25 27-29/26 9,10,14,16,17,30/20 9,10,14,16,17/21 13/26 14/25,26 -21/14



## ANNEX I

## DESCRIPTION OF THE ENTRIES IN THE SNA MATRIX

Matrix presented in Table 1	Matrix presented in Table 4
<p>T<sub>1.3</sub> to T<sub>1.6</sub> Inputs of commodities (material), including commodity taxes, into the productive activity (<u>including</u> commodity inputs in connexion with the provision of cultural etc. facilities to employees and the material component of cost of travel of employees on account of their employers) of:</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (T<sub>1.3</sub>)</li> <li>- industries in the non-material sphere (T<sub>1.4</sub>)</li> <li>- producers of government services (T<sub>1.5</sub>)</li> <li>- producers of private non-profit services to households (T<sub>1.6</sub>)</li> </ul>	<p>1/3 to 1/7 Inputs of commodities (material), including commodity taxes, into the productive activity (<u>excluding</u> commodity inputs in connexion with the provision of cultural etc. facilities to employees, the material component of cost of travel of employees on account of their employers and losses in stocks other than those due to normal events in production) of:</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (1/3)</li> <li>- industries providing housing services and ownership of dwellings (1/4)</li> <li>- other industries in the non-material sphere (1/5)</li> <li>- producers of government services (1/6)</li> <li>- producers of private non-profit services to households (1/7)</li> </ul> <p>1/8 Inputs of commodities (material), in connexion with the provision of cultural etc. facilities to employees</p> <p>1/9 Material component of cost of travel of employees on account of their employers</p> <p>1/10 Losses in stocks, other than those due to normal events in production</p>

Matrix presented in Table 1		Matrix presented in Table 4	
T <sub>1.7</sub>	Commodities (material) entering into the consumption expenditure in the domestic market, of all households, whether resident or not (including commodity taxes)	1/11; 1/12	Commodities (material) entering into the consumption expenditure in the domestic market, of all households, whether resident or not (including commodity taxes)  - financed by households (1/11) - financed by government, but allocated to consumption expenditure of households (1/12)
T <sub>1.14</sub>	Additions to the stocks of commodities, held by industries and producers of government services (including commodity taxes)	1/30	Additions to the stocks of commodities, held by industries and producers of government services (including commodity taxes)
T <sub>1.15</sub>	Commodities entering into gross fixed capital formation of industries and other producers (including commodity taxes)	1/31 to 1/34	Commodities entering into gross fixed capital formation of industries and other producers (including commodity taxes)  - counterpart of losses in fixed assets (1/31) - counterpart of abandoned construction (1/32) - work in progress in construction (1/33) - other (1/34)
F <sub>1.19</sub>	Exports of commodities (material) (including commodity taxes)	1/38	Exports of commodities (material)

Matrix presented in Table 1	Matrix presented in Table 4
<p>T<sub>2.3</sub> to T<sub>2.6</sub> Inputs of commodities (non-material), including commodity taxes, into the productive activity (<u>including</u> non-material services used in connexion with the provision of cultural etc. facilities to employees and the non-material component of cost of travel of employees on account of their employers) of:</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (T<sub>2.3</sub>)</li> <li>- industries in the non-material sphere (T<sub>2.4</sub>)</li> <li>- producers of government services (T<sub>2.5</sub>)</li> <li>- producers of private non-profit services to households (T<sub>2.6</sub>)</li> </ul>	<p>2/3 to 2/7 Inputs of commodities (non-material), including commodity taxes, into the productive activity (<u>excluding</u> non-material services used in connexion with the provision of cultural etc. facilities to employees and the non-material component of cost of travel of employees on account of their employers) of:</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (2/3)</li> <li>- industries providing housing services and ownership of dwellings (2/4)</li> <li>- other industries in the non-material sphere (2/5)</li> <li>- producers of government services (2/6)</li> <li>- producers of private non-profit services to households (2/7)</li> </ul> <p>2/8 Inputs of non-material services in connexion with the provision of cultural etc. facilities to employees</p> <p>2/9 Non-material component of cost of travel of employees on account of their employers</p>
<p>T<sub>2.7</sub> Commodities (non-material) entering into the consumption expenditure in the domestic market of all households, whether resident or not (including commodity taxes)</p>	<p>2/13; 2/14 Commodities (non-material) entering into the consumption expenditure in the domestic market of all households, whether resident or not (including commodity taxes)</p> <ul style="list-style-type: none"> <li>- financed by households (2/13)</li> <li>- financed by government, but allocated to consumption expenditure of households (2/14)</li> </ul>

Matrix presented in Table 1		Matrix presented in Table 4	
T <sub>2.19</sub>	Exports of commodities (non-material) (including commodity taxes)	2/39	Exports of commodities (non-material) (including commodity taxes)
T <sub>3.1</sub>	Commodity outputs (material) of industries in the material sphere (including commodity taxes)	3/1	Commodity outputs (material) of industries in the material sphere (including commodity taxes)
T <sub>3.2</sub>	Commodity outputs (non-material) of industries in the material sphere (including commodity taxes)	-	(In the framework for inter-system comparisons, it is assumed that the output of non-material services of industries in the material sphere is small and can be neglected)
T <sub>4.1</sub>	Commodity outputs (material) of industries in the non-material sphere (including commodity taxes)	-	(In the framework for inter-system comparisons, it is assumed that the output of material goods of industries in the non-material sphere is small and can be neglected)
T <sub>4.2</sub>	Commodity outputs (non-material) of industries in the non-material sphere (including commodity taxes)	4/2; 5/2	Commodity outputs (non-material) of industries in the non-material sphere (including commodity taxes) - industries providing housing services and ownership of dwellings (4/2) - other industries in the non-material sphere (5/2)
T <sub>5.1</sub>	Commodity outputs (material) of producers of government services	-	(In the framework of inter-system comparisons, it is assumed that commodity outputs (material) of producers of government services are small and can be neglected)
T <sub>5.2</sub>	Commodity outputs (non-material) of producers of government services	6/2	Commodity outputs (non-material) of producers of government services.

Matrix presented in Table 1		Matrix presented in Table 4	
T <sub>5.7</sub>	Government services entering into household consumption expenditure in the domestic market	6/13	Government services entering into household consumption expenditure in the domestic market
T <sub>5.8</sub>	Services produced for own use by government services	6/15; 6/16	Services produced for own use by government services <ul style="list-style-type: none"> <li>- serving households (and included in the concept of "total consumption of the population") (6/15)</li> <li>- serving community needs (6/16)</li> </ul>
T <sub>6.1</sub>	Commodity outputs (material) of producers of private non-profit services to households	-	(In the framework for inter-system comparisons, it is assumed that commodity outputs (material) of producers of private non-profit services to households are small, but can be neglected)
T <sub>6.2</sub>	Commodity outputs (non-material) of producers of private non-profit services to households	7/2	Commodity outputs (non-material) of producers of private non-profit services to households
T <sub>6.7</sub>	Domestic services and private non-profit services entering into household consumption expenditure in the domestic market	7/13; 7/14	Domestic services and private non-profit services entering into household consumption expenditure in the domestic market <ul style="list-style-type: none"> <li>- Purchases of domestic services and private non-profit services by households (7/13)</li> <li>- Financed by government, but allocated to consumption expenditure of households (7/14)</li> </ul>
T <sub>6.9</sub>	Services produced for own use by private non-profit services	7/17; 7/18	Services produced for own use by private non-profit services <ul style="list-style-type: none"> <li>- serving households (and included in the concept of "total consumption of the population") (7/17)</li> <li>- serving community needs (7/18)</li> </ul>

Matrix presented in Table 1	Matrix presented in Table 4
<p>-----</p> <p>-----</p> <p>-----</p>	<p>8/3 to 8/7 Expenditure on commodities (material and non-material) in connexion with the provision of cultural etc. facilities to employees, by</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (8/3)</li> <li>- industries providing housing services (8/4)</li> <li>- other industries in the non-material sphere (8/5)</li> <li>- producers of government services (8/6)</li> <li>- producers of private non-profit services (8/7)</li> </ul> <p>9/3 to 9/7 Expenditure of employers on business travel of their employees of</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (9/3)</li> <li>- industries providing housing services (9/4)</li> <li>- other industries in the non-material sphere (9/5)</li> <li>- producers of government services (9/6)</li> <li>- producers of private non-profit services (9/7)</li> </ul> <p>10/3 Losses in stocks, other than those due to normal events in production</p>
<p>T7.13 Final consumption expenditure in the domestic market and abroad by resident households</p>	<p>11/29; 12/29; 13/29; 14/29 Final consumption expenditure in the domestic market and abroad by resident households</p> <ul style="list-style-type: none"> <li>- goods and material services financed by households (11/29)</li> <li>- goods and material services financed by government, but allocated to consumption expenditure of households (12/29)</li> <li>- non-material services financed by households (13/29)</li> <li>- non-material services financed by government, but allocated to consumption expenditure of households (14/29)</li> </ul>

	Matrix presented in Table 1		Matrix presented in Table 4
T <sub>7.19</sub>	Final consumption expenditure in the domestic market by non-resident household	11/39; 13/40	Final consumption expenditure in the domestic market by non-resident households - goods and material services (11/39) - non-material services (13/40)
T <sub>8.13</sub>	Final consumption expenditure by general government	15/29; 16/29	Final consumption expenditure by general government - services serving households (and included in the concept of "total consumption of the population") (15/29) - services serving community needs (16/29)
T <sub>9.13</sub>	Final consumption expenditure by private non-profit institutions	17/29; 18/29	Final consumption expenditure by private non-profit institutions - services serving households (and included in the concept of "total consumption of the population") (17/29) - services serving community needs (18/29)
T <sub>10.1</sub>	Import duties on commodities (material)	22/1	Import duties on commodities (material)
T <sub>10.2</sub>	Import duties on commodities (non-material)	22/2	Import duties on commodities (non-material)
T <sub>10.3</sub> to T <sub>10.6</sub>	Values added, i.e. compensation of employees, operating surplus, provision for the consumption of fixed assets and indirect taxes (net) ( <u>including</u> elements of value added relating to the provision of cultural etc. facilities of employees) in the productive activity of: - industries in the material sphere (T <sub>10.3</sub> ) - industries in the non-material sphere (T <sub>10.4</sub> )	19/3 to 19/7	Wages and salaries, <u>excluding</u> wages and salaries paid in connexion with the provision of cultural facilities to employees: - industries in the material sphere (19/3) - industries providing housing services (19/4) - other industries in the non-material sphere (19/5)

Matrix presented in Table 1	Matrix presented in Table 4
<ul style="list-style-type: none"> <li>- producers of government services (T<sub>10.5</sub>)</li> <li>- producers of private non-profit services (T<sub>10.6</sub>)</li> </ul>	<ul style="list-style-type: none"> <li>- producers of government services (19/6)</li> <li>- producers of private services (19/7)</li> </ul>
19/24	Wages and salaries paid in connexion with the provision of cultural facilities to employees (all producers)
20/3 to 20/7	Employers' contributions to social security and private pension funds (excluding contributions in respect of wages and salaries paid in connexion with the provision of cultural facilities to employees) <ul style="list-style-type: none"> <li>- industries in the material sphere (20/3)</li> <li>- industries providing housing services (20/4)</li> <li>- other industries in the non-material sphere (20/5)</li> <li>- producers of government services (20/6)</li> <li>- producers of private non-profit services (20/7)</li> </ul>
20/25	Employers' contributions to social security and private pension funds in respect of wages and salaries paid in connexion with the provision of cultural facilities to employees (all producers)
21/3 to 21/5	Operating surplus, including indirect taxes, net, of unincorporated enterprises <ul style="list-style-type: none"> <li>- industries in the material sphere (21/3)</li> <li>- industries providing housing services (21/4)</li> <li>- other industries in the non-material sphere (21/5)</li> </ul>



Matrix presented in Table 1	Matrix presented in Table 4
	<p>22/3 to 22/5 Operating surplus, including indirect taxes, net, of corporate and quasi corporate enterprises</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (22/3)</li> <li>- industries providing housing services (22/4)</li> <li>- other industries in the non-material sphere (22/5)</li> </ul> <p>23/3 to 23/7 Provision for the consumption of fixed capital (excluding consumption of fixed capital charged in respect of the provision of cultural facilities to employees)</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (23/3)</li> <li>- industries providing housing services (23/4)</li> <li>- other industries in the non-material sphere (23/5)</li> <li>- producers of government services (23/6)</li> <li>- producers of private non-profit services (23/7)</li> </ul> <p>23/26 Provision for the consumption of fixed capital in connexion with the provision of cultural facilities to employees (all producers)</p>
<p>T<sub>10.13</sub> The negative of charges for the consumption of fixed capital</p>	<p>23/37 The negative of charges for the consumption of fixed capital</p>
	<p>24/3 to 24/7 Wages and salaries paid in connexion with the provision of cultural facilities to employees</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (24/3)</li> <li>- industries providing housing services (24/4)</li> </ul>

Matrix presented in Table 1	Matrix presented in Table 4
	<ul style="list-style-type: none"> <li>- other industries in the non-material sphere (24/5)</li> <li>- producers of government services (24/6)</li> <li>- producers of private non-profit services (24/7)</li> </ul>
<p>25/3 to 25/7</p>	<p>Employers' contributions to social security and private pension funds in respect of wages and salaries paid in connexion with the provision of cultural facilities to employees</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (25/3)</li> <li>- industries providing housing services (25/4)</li> <li>- other industries in the non-material sphere (25/5)</li> <li>- producers of government services (25/6)</li> <li>- producers of private non-profit services (25/7)</li> </ul>
<p>26/3 to 26/7</p>	<p>Provisions for the consumption of fixed assets in connexion with the provision of cultural facilities to employees</p> <ul style="list-style-type: none"> <li>- industries in the material sphere (26/3)</li> <li>- industries providing housing services (26/4)</li> <li>- other industries in the non-material sphere (26/5)</li> <li>- producers of government services (26/6)</li> <li>- producers of private non-profit services (26/7)</li> </ul>

Matrix presented in Table 1		Matrix presented in Table 4	
T <sub>11.10</sub>	Compensation of employees and operating surpluses classified by institutional sectors of origin	27/19 to 27/22	Compensation of employees and operating surpluses classified by institutional sectors of origin <ul style="list-style-type: none"> <li>- wages and salaries (27/19)</li> <li>- employers' contributions to social security and private pension funds (27/20)</li> <li>- operating surplus of unincorporated enterprises (27/21)</li> <li>- operating surplus of corporate and quasi-corporate enterprises (27/22)</li> </ul>
T <sub>12.11</sub>	Compensation of employees and operating surpluses arising in institutional sectors classified by component forms of income	28/27	Compensation of employees and operating surpluses arising in institutional sectors classified by component forms of income
T <sub>12.13</sub>	Current income transfers, including transfers of property income, paid out by the institutional sectors (as sectors of receipt)	28/29	Current income transfers, including transfers of property income, paid out by the institutional sectors (as sectors of receipt)
T <sub>12.19</sub>	Current income transfers, including transfers of property income, paid out by the rest of the world	28/40	Current income transfers, including transfers of property income, paid out by the rest of the world
T <sub>13.10</sub>	Indirect taxes, net, paid to general government	29/22	Indirect taxes, net, paid to general government
T <sub>13.12</sub>	Gross receipts of income by the institutional sectors (as sectors of receipt)	29/28	Gross receipts of income by the institutional sectors (as sectors of receipt)
T <sub>14.18</sub>	The finance provided by the capital finance accounts of the institutional sectors, of the increase in stocks	30/37	The finance provided by the capital finance accounts of the institutional sectors, of the increase in stocks

Matrix presented in Table 1		Matrix presented in Table 4	
T <sub>15.13</sub>	The finance provided by the capital finance accounts of the institutional sectors, of gross fixed capital formation	31/37; 32/37; 33/37; 34/37	The finance provided by the capital finance accounts of the institutional sectors, of gross fixed capital formation <ul style="list-style-type: none"> <li>- counterpart of losses (31/37)</li> <li>- counterpart of abandoned construction (32/37)</li> <li>- work in progress in construction (33/37)</li> <li>- other (34/37)</li> </ul>
T <sub>17.18</sub>	Net acquisition of financial assets by institutional sectors	36/37	Net acquisition of financial assets by institutional sectors
T <sub>17.19</sub>	Net acquisition of financial assets, issued by the country under study, by the rest of the world	36/40	Net acquisition of financial assets, issued by the country under study, by the rest of the world
T <sub>18.13</sub>	The saving of the institutional sectors	37/29	The saving of the institutional sectors
T <sub>18.16</sub>	Net receipts of capital transfers by the institutional sectors	37/35	Net receipts of capital transfers by the institutional sectors
T <sub>18.17</sub>	Net issues of financial liabilities by the institutional sectors	37/36	Net issues of financial liabilities by the institutional sectors
T <sub>19.1</sub> ; T <sub>19.2</sub>	Imports of commodities at c.i.f. values <ul style="list-style-type: none"> <li>- goods and material services (T<sub>19.1</sub>)</li> <li>- non-material services (T<sub>19.2</sub>)</li> </ul>	38/1; 39/2	Imports of commodities at c.i.f. values <ul style="list-style-type: none"> <li>- goods and material services (38/1)</li> <li>- non-material services (39/2)</li> </ul>
T <sub>19.5</sub>	Direct expenditure abroad on goods and services by producers of government services	38/6; 39/6	Direct expenditure abroad on goods and services by producers of government services <ul style="list-style-type: none"> <li>- goods and material services (38/6)</li> <li>- non-material services (39/6)</li> </ul>

Matrix presented in Table 1		Matrix presented in Table 4	
T <sub>19.7</sub>	Final consumption expenditure abroad by resident households	38/11; 39/13	Final consumption expenditure abroad by resident households - goods and material services (38/11) - non-material services (39/13)
T <sub>19.12</sub>	Gross receipts of income (whether distributed factor income or current transfers) by the rest of the world from the country under study	40/28	Gross receipts of income (whether distributed factor income or current transfers) by the rest of the world from the country under study
T <sub>19.16</sub>	Net receipts of capital transfers by the rest of the world	40/35	Net receipts of capital transfers by the rest of the world
T <sub>19.17</sub>	Net issues of financial liabilities, taken up by the country under study, by the rest of the world	40/36	Net issues of financial liabilities, taken up by the country under study, by the rest of the world
T <sub>19.19</sub>	The rest of the world's balance of payments on current account with the country under study	40/38 to 40/40	The rest of the world's balance of payments on current account with the country under study - balance of imports and exports of goods and material services (40/38) - balance of imports and exports of material services (40/39) - other (40/40)

ANNEX II. DESCRIPTION OF THE  
ENTRIES IN THE MPS MATRIX

Matrix presented in table 2	Matrix presented in table 5
<sup>t</sup> 1.2 Inputs of goods and material services (including depreciation) into the productive activity of units in the material sphere.	1/3 Inputs of goods and material services (excluding depreciation) into the productive activity of units in the material sphere.  2/3 Depreciation allowances of units in the material sphere.
<sup>t</sup> 1.14 Goods and material services entering personal consumption (including depreciation of owner occupied and other dwellings).	1/27 Goods and material services entering personal consumption (excluding depreciation). to 1/29 - Expenditure on goods and material services of employees for travel on account of their employers (1/27). - Material expenditure of units providing housing services (excluding depreciation) (1/28). - Other goods and material services entering personal consumption (including goods and material services, other than depreciation, acquired in connexion with owner occupied dwellings)(1/29).  2/28 Depreciation allowances of units providing housing services.  2/29 Depreciation of owner occupied dwellings.
<sup>t</sup> 1.15 Goods and material services (including depreciation) entering consumption of units in the non-material sphere serving the population.	1/30 Goods and material services (excluding depreciation) entering consumption of units in the non-material sphere serving the population  2/30 Depreciation allowances of units in the non-material sphere serving the population

Matrix presented in table 2

Matrix presented in table 5

<sup>t</sup> 1.16 Goods and material services (including depreciation) entering consumption of units in the non-material sphere serving community needs.	1/31 Goods and material services (excluding depreciation) entering consumption of units in the non-material sphere serving community needs.  2/31 Depreciation allowances of units in the non-material sphere serving community needs.
<sup>t</sup> 1.17 Goods and material services entering net capital formation.	1/32 Goods and material services entering gross fixed capital formation.  1/33 Goods and material services entering capital formation in work in progress in construction.  1/34 Goods entering capital formation in stocks.  2/32 The negative of depreciation allowances of units in the material and non-material spheres.
<sup>t</sup> 1.18 Losses in fixed assets and stocks	1/35 Abandoned construction. 1/36 Other losses in fixed assets. 1/37 Losses in stocks.
<sup>t</sup> 1.19 Exports of goods and material services.	1/38 Exports of goods and material services.
<sup>t</sup> 2.1 Outputs of goods and material services of units in the material sphere.	3/1 Outputs of goods and material services of units in the material sphere.
<sup>t</sup> 3.2 Net values added (primary income of the population, primary income of enterprises) in the productive activity of units in the material sphere.	4/3 Net values added (primary income of the population, primary income of enterprises) in the productive activity of units in the material sphere.

Matrix presented in table 2	Matrix presented in table 5
<p><sup>t</sup>4.3 Wages and salaries and other primary income of the population for activities in the material sphere.</p>	<p>5/4 Net income from private enterprises and private plots.</p> <p>6/4 Cost of travel of employees of units in the material sphere on account of their employers.</p> <p>7/4 Wages and salaries of employees of units in the material sphere.</p>
<p><sup>t</sup>5.3 Primary income of enterprises in the material sphere.</p>	<p>8/4 Primary income of enterprises in the material sphere.</p>
<p><sup>t</sup>6.10 Transfers (payments into the budget, social insurance contributions, interests on bank credits and loans, payments into special non-budgetary funds, direct transfers to other units and similar transactions) made by units in the material sphere.</p>	<p>9/19 Employers' contributions to social to security and private pension funds, 9/24 made by:</p> <ul style="list-style-type: none"> <li>- Units in the material sphere (9/19)</li> <li>- Budgetary units in the non-material sphere serving the population (9/20)</li> <li>- Units providing housing services (9/21)</li> </ul>
<p><sup>t</sup>6.11 Transfers (see specification to item <sup>t</sup>6.10) made by units in the non-material sphere serving the population.</p>	<ul style="list-style-type: none"> <li>- Non-budgetary units in the non-material sphere serving the population (9/22).</li> <li>- Budgetary units in the non-material sphere serving community needs (9/23)</li> </ul>
<p><sup>t</sup>6.12 Transfers (see specification to item <sup>t</sup>6.10) made by units in the non-material sphere serving community needs.</p>	<ul style="list-style-type: none"> <li>- Non-budgetary units in the non-material sphere serving community needs (9/24)</li> </ul>
<p><sup>t</sup>6.13 Transfers (see specification to item <sup>t</sup>6.10) made by the population.</p>	<p>10/19 Expenditure made in connexion with to the provision of cultural etc. 10/24 facilities to employees by</p> <ul style="list-style-type: none"> <li>- Units in the material sphere (10/19)</li> <li>- Budgetary units in the non-material sphere serving the population (11/20)</li> <li>- Units providing housing services (11/21)</li> <li>- Non-budgetary units in the non-material sphere serving the population (11/22)</li> </ul>



Matrix presented in table 2

Matrix presented in table 5

Matrix presented in table 2	Matrix presented in table 5
	<ul style="list-style-type: none"> <li>- Budgetary units in the non-material sphere serving community needs (11/23)</li> <li>- Non-budgetary units in the non-material sphere serving community needs (11/24)</li> </ul>
	11/21 Inputed transfer from units providing housing services to the population, equivalent to the material cost involved in the provision of housing services.
	12/19 Other transfers (payments into the budget, interest on bank credits
	12/26 and loans, payments into special non-budgetary funds, direct transfers to other units and similar transactions) made by:
	<ul style="list-style-type: none"> <li>- units in the material sphere (12/19)</li> <li>- Budgetary units in the non-material sphere serving the population (12/20)</li> <li>- Units providing housing services (other than the inputed transfers to the population, recorded in 11/21) (12/21)</li> <li>- Non-budgetary units in the non-material sphere serving the population (12/22)</li> <li>- Budgetary units in the non-material sphere serving community needs (12/23)</li> <li>- Non-budgetary units in the non-material sphere serving community needs (12/24)</li> <li>- the population (12/26)</li> </ul>
<sup>t</sup> 6.19 Transfers (see specification to item 5.10) received from the rest of the world.	12/39 Consumption expenditure of non-resident households in the domestic market.
	12/40 Other transfers (see specification to items 12/19 to 12/26) received from the rest of the world.

Matrix presented in table 2

Matrix presented in table 5

<sup>t</sup> 7.10 Payments in respect of non-material services by units in the material sphere.	14/19	Payments in respect of non-material services by units in the material sphere.
<sup>t</sup> 7.11 Payments in respect of non-material services by units in the non-material sphere serving the population.	14/20 to 14/22	Payments in respect of non-material services by units in the non-material sphere serving the population. - Budgetary units (14/20) - Units providing housing services (14/21) - Non-budgetary units (14/22)
<sup>t</sup> 7.12 Payments in respect of non-material services by units in the non-material sphere serving community needs.	14/23; 14/24	Payments in respect of non-material services by units in the non-material sphere serving community needs. - Budgetary units (14/23) - Non-budgetary units (14/24)
<sup>t</sup> 7.13 Payments in respect of non-material services by the population	13/26; 14/25, 14/26	Payments in respect of non-material services by the population - Expenditure on non-material services bought on travel on account of employers (13/26) - Non-material services received in connexion with the ownership of private dwellings (14/25) - Other (14/26)
<sup>t</sup> 7.19 Exports of non-material services.	14/40	Exports of non-material services.
<sup>t</sup> 8.11 Wages and salaries and related elements of labour cost paid by units in the non-material sphere serving the population	15/22; 15/24	Net income of private enterprises in the non-material sphere - units serving the population (15/22) - Units serving community needs (15/24)

Matrix presented in table 2

Matrix presented in table 5

<p><sup>t</sup>8.12 Wages and salaries and related elements of labour cost paid by units in the non-material sphere serving community needs.</p>	<p>16/20 Cost of travel of employees paid to 16/24 by units in the non-material sphere.</p> <ul style="list-style-type: none"> <li>- Budgetary units serving the population (16/20)</li> <li>- Units providing housing services (16/21)</li> <li>- Non-budgetary units serving the population (16/22)</li> <li>- Budgetary units serving community needs (16/23)</li> <li>- Non-budgetary units serving community needs (16/24)</li> </ul> <p>17/20 to 17/24 Wages and salaries paid by units in the non-material sphere</p> <ul style="list-style-type: none"> <li>- Budgetary units serving the population (17/20)</li> <li>- Units providing housing services (17/21)</li> <li>- Non-budgetary units serving the population (17/22)</li> <li>- Budgetary units serving community needs (17/23)</li> <li>- Non-budgetary units serving community needs (17/24)</li> </ul>
<p><sup>t</sup>9.10 Payments into the credit system and increases in debt incurred by units in the material sphere</p>	<p>18/19 Payments into the credit system and increase in debt incurred by units in the material sphere</p>
<p><sup>t</sup>9.11 Payments into the credit system and increases in debt incurred by units in the non-material sphere serving the population.</p>	<p>18/20 Payments into the credit system to 18/22 and increases in debt incurred by units in the non-material sphere serving the population</p> <ul style="list-style-type: none"> <li>- Budgetary units (18/20)</li> <li>- Units providing housing services (18/21)</li> <li>- Non-budgetary units (18/22)</li> </ul>

Matrix presented in table 2	Matrix presented in table 5
<sup>t</sup> 9.12 Payments into the credit system and increases in debt incurred by units in the non-material sphere serving community needs	18/23; 18/24 Payments into the credit system and increases in debt incurred by units in the non-material sphere serving community needs - Budgetary units (18/23) - Non-budgetary units (18/24)
<sup>t</sup> 9.13 Payments into the credit system and increases in debt incurred by the population	18/26 Payments into the credit system and increases in debt incurred by the population
<sup>t</sup> 9.19 Payments into the credit system and increases in debt incurred by the Rest of the World	18/40 Payments into the credit system and increases in debt incurred by the Rest of the World
<sup>t</sup> 10.5 Primary income of units in the material sphere	19/8 Primary income of units in the material sphere
<sup>t</sup> 10.6 Transfers received by units in the material sphere	19/12 Transfers received by units in the material sphere
<sup>t</sup> 10.9 Receipts from the credit system and increases in credits granted by units in the material sphere	19/18 Receipts from the credit system and increases in credits granted by units in the material sphere
<sup>t</sup> 11.6 Transfers received by units in the non-material sphere serving households	20/10; 20/12 Transfers received by units in the non-material sphere serving the population - Transfers from units in the material and non-material sphere in connexion with the provision of cultural facilities to employees (20/10) - Other transfers received (20/12) 21/12 Transfers received by units providing housing services 22/12 Transfers received by other non-budgetary units serving the population

Matrix presented in table 2	Matrix presented in table 5
<sup>t</sup> 11.7 Receipts from the sale of non-material services by units in the non-material sphere serving the population.	21/14 Receipts from the sale of non-material services by units providing housing services (rents) 22/13; Receipts from the sale of non-material services by other non-budgetary units serving the population. 22/14 - Non-material services rendered to employees travelling on account of their employers (22/13) - Other (22/14)
<sup>t</sup> 11.9 Receipts from the credit system and increases in credits granted by units in the non-material sphere serving the population	20/18; Receipts from the credit system 21/18; and increases in credits granted 22/18 by units in the non-material sphere serving the population - Budgetary units (20/18) - Units providing housing services (21/18) - Other non-budgetary units (22/18)
<sup>t</sup> 12.6 Transfers received by budgetary units in the non-material sphere serving community needs	23/9 Employers' contributions to social security received by budgetary units in the non-material sphere serving community needs. 23/12; Other transfers received by units 24/12 in the non-material sphere serving community needs - Budgetary units (23/12) - Non-budgetary units (24/12)
<sup>t</sup> 12.7 Receipts from the sale of non-material services by units in the non-material sphere serving community needs	24/14 Receipts from the sale of services by units in the non-material sphere serving community needs (non-budgetary units)
<sup>t</sup> 12.9 Receipts from the credit system and increases in credits granted by units in the non-material sphere serving community needs	23/18; Receipts from the credit system and 24/18 increases in credits granted by units in the non-material sphere serving community needs - Budgetary units (23/18) - Non-budgetary units (24/18)

Matrix presented in table 2

Matrix presented in table 5

<sup>t</sup> 13.4 Primary income of the population	26/5; Primary income received by the 26/6; population 26/7 - Net income from private enterprises and private plots (26/5) - Travel cost of employees paid for by units in the material sphere (26/6) - Other primary income of the population (wages and salaries in the material sphere)(26/7)
<sup>t</sup> 13.6 Transfers received by the population	25/12; Transfers received by the popula- 26/11; tion 26/12 - Notional transfer, representing the cost incurred by the population in respect of the ownership of private dwellings (25/12) - Notional transfer resulting from the allocation of the material cost of units providing housing services to personal consumption (26/11) - Other transfers received by the population (26/12)
<sup>t</sup> 13.8 Wages and salaries in the non-material sphere received by the population (including related elements of labour cost)	26/15; Wages and salaries in the non- 26/16; material sphere received by the 26/17 population - Net income from private enterprises in the non-material sphere (26/15) - Travel cost of employees paid for by units in the non-material sphere (26/16) - Other (26/17)
<sup>t</sup> 13.9 Receipts from the credit system and increases in credits granted by the population	26/18 Receipts from the credit system and increases in credits granted by the population

Matrix presented in table 2	Matrix presented in table 5
<sup>t</sup> 14.13 Personal consumption	27/26 Expenditure on goods and material services bought on travel on account of employers 28/26 Material cost of units providing housing services, allocated to to personal consumption 29/25 Goods and material services bought in connexion with the ownership of private dwellings. 29/26 Other expenditure on goods and material services entering personal consumption
<sup>t</sup> 15.11 Consumption of units in the non-material sphere serving the population (other than units providing housing services )	30/20; 30/22 Consumption of units in the non-material sphere serving the population (other than units providing housing services) - Budgetary units (30/20) - Non-budgetary units (30/22)
<sup>t</sup> 16.12 Consumption of units in the non-material sphere serving community needs	31/23; 31/24 Consumption of units in the non-material sphere serving community needs - Budgetary units (31/23) - Non-budgetary units (31/24)
<sup>t</sup> 17.10 Net capital formation of units in the material sphere	32/19; 33/19; 34/19 Net capital formation of units in the material sphere - Net fixed capital formation (32/19) - Work in progress in construction (33/19) - Other capital formation in stocks (34/19)
<sup>t</sup> 17.11 Net capital formation of units in the non-material sphere serving the population	32/20; 34/20 Net capital formation of budgetary units serving the population - net fixed capital formation (32/20) - capital formation in stocks (34/20)

Matrix presented in table 2

Matrix presented in table 5

		32/21; Net capital formation of units 34/21 providing housing services - net fixed capital formation (32/21) - capital formation in stocks (34/21)
		32/22; Net capital formation of other 34/22 non-budgetary units serving the population - Net fixed capital formation (32/22) - Capital formation in stocks (34/22)
<sup>t</sup> 17.12	Net capital formation of units in the non-material sphere serving community needs	32/23; Net capital formation of budgetary 34/23 units serving community needs - Net fixed capital formation (32/23) - Capital formation in stocks (34/23)
		32/24; Net capital formation of non- 34/24 budgetary units serving community needs - Net fixed capital formation (32/24) - Capital formation in stocks (34/24)
<sup>t</sup> 17.13	Net capital formation in owner occupied dwellings	32/25 Net capital formation in owner occupied dwellings
<sup>t</sup> 18.10	Losses of units in the material sphere (fixed assets and stocks)	35/19; Losses of units in the material 36/19; sphere 37/19 - Abandoned construction (35/19) - Other losses in fixed assets (36/19) - Losses in stocks (37/19)



Matrix presented in table 2	Matrix presented in table 5
<sup>t</sup> 18.11 Losses of units in the non-material sphere serving the population (fixed assets)	36/20; Losses of fixed assets of units in 36/21; the non-material sphere serving 36/22 the population - Budgetary units (36/20) - Units providing housing services (36/21) - Other non-budgetary units (36/22)
<sup>t</sup> 18.12 Losses of units in the non-material sphere serving community needs (fixed assets)	36/23; Losses of fixed assets of units 36/24 in the non-material sphere serving community needs - Budgetary units (36/23) - Non-budgetary units (36/24)
<sup>t</sup> 19.1 Imports of goods and material services	38/1 Imports of goods and material services
<sup>t</sup> 19.6 Transfers made by the population to the rest of the world	39/12 Consumption abroad by resident households 40/12 Other transfers made by the population to the rest of the world
<sup>t</sup> 19.7 Imports of non-material services	40/14 Imports of non-material services
<sup>t</sup> 19.9 Receipts from the credit system and increases in credits granted by the Rest of the World	40/18 Receipts from the credit system and increases in credits granted by the Rest of the World
-	40/38 Balance of imports over exports (goods and material services) 40/39 Balance of expenditure abroad by resident households over expenditure in the domestic market by non-resident households