

Understanding Government Consumption

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Abstract

Government final consumption represents one of the key indicators provided by national accounts, but at the same time one with relatively problematic economic interpretation. The concept of government final consumption expenditure involves a number of conventions. As a result, its economic and statistical character differs from other final expenditure components in total economy like household consumption or investment. The article explains how government final consumption expenditure and actual final consumption are defined and valued in national accounts, describes the borderline between individual and collective consumption expenditure and examines the relation between government final consumption expenditure and government total expenditure. The concepts are illustrated in quantitative terms on the example of the Czech Republic.

Keywords

General government sector, government final consumption expenditure, government actual final consumption, individual consumption, collective consumption, government expenditure

JEL code

C82, E21, E23, H50

INTRODUCTION

National accounts (the 1993 SNA and the ESA 1995) introduced two concepts of final consumption – final consumption expenditure and actual final consumption. These concepts are relevant for three sectors – general government, households and non-profit institutions serving households (NPISHs). Other sectors in the national economy have neither final consumption expenditure nor actual final consumption by convention.

Government final consumption expenditure represents one of the key indicators provided by national accounts. First, it is an important component of total GDP when derived by the expenditure approach. Second, breaking down government final consumption expenditure into individual and collective components is important for the estimation of government actual consumption. Moreover, government final consumption expenditure on individual goods and services forms a part of actual final consumption of the households sector. Therefore, the analysis of various government consumption aggregates is a vital element of many economic and fiscal analyses.

Nonetheless, it is important to stress that government final consumption expenditure is an accounting construct. Compilation of consumption aggregates for the general government sector in national accounts involves several accounting conventions as well as imputations which are not always intuitive for data users. Sound knowledge of the specific concepts employed and national circumstances are essential

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for avoiding possible misinterpretation of statistical data. Furthermore, government final consumption expenditure is sometimes confused with government current or total expenditure, although these economic concepts substantially differ in their scope.

The article examines how government consumption aggregates are constructed in national accounts and connected with government output and social transfers in kind. It also describes how government final consumption expenditure is split in consumption expenditure on individual and collective goods and services – the topic which is not thoroughly described in national accounts manuals. In addition, it shows the link between government final consumption expenditure and government total expenditure. Main factors behind developments of government final consumption expenditure, its breakdowns and the link with government total expenditure are presented in a case study dedicated to the Czech Republic. Finally, the paper mentions some of the revisions proposed in the 2008 SNA and the forthcoming ESA 2010 which have an impact on the government consumption aggregates.

1 GOVERNMENT FINAL CONSUMPTION EXPENDITURE IN NATIONAL ACCOUNTS

Government final consumption expenditure (P.3) was defined in national accounts (the ESA 1995) as “expenditure incurred by the general government sector on goods or services that are used for the direct satisfaction of individual needs or wants (individual consumption goods and services) or expenditure on the collective needs of members of the community (collective consumption services)” and this general definition was similar to that included in the 1993 SNA. Government final consumption expenditure is then incurred by all subsectors of the general government sector, i.e. by the central, state and local government as well as by the social security funds.

The concept of final consumption expenditure is based on the final bearer of the expenditure and not on the unit undertaking the initial expenditure. It means that e.g. consumption expenditure initially made by households, which is then reimbursed by units from the general government sector, is treated as final consumption expenditure of the general government sector. It should be stressed that government final consumption expenditure includes also expenditure measured indirectly (imputed).

Components of government final consumption expenditure were defined in the original ESA 1995 (published as regulation (EC) 2223/1996, see Eurostat, 1996, paragraph 3.79) in rather general terms as “the value of goods and services produced by general government itself (other than own account capital formation and sales)” plus “purchases by general government of goods and services produced by market producers that are supplied to households without any transformation as social transfers in kind”. Such a definition was comprehensible for data compilers and national accounts specialist, but it did not provide a completely clear picture to data users about all individual components included there. In addition, it was not possible to derive government final consumption expenditure as a combination of elementary ESA transactions due to several missing breakdowns which were not shown (but implicitly considered) in national accounts.

This issue was approached in 2000. The ESA 1995 was amended in order to define government revenue and expenditure (regulation (EC) 1500/2000) and this revision brought more detailed classifications for some transactions. Thanks to revised and more detailed classifications for other non-market output (P.13) and social transfers in kind (D.63) in the revised ESA 1995, a precise definition of government final consumption expenditure could be introduced (this revision was not included in the 1993 SNA).

The revised ESA 1995 then defined government final consumption as “(a) the value of the goods and services produced by general government itself (P.1) other than own-account capital formation (corresponding to P.12) and sales, i.e. market output (P.11) and payments for the other non-market output (P.131); plus (b) purchases by general government of goods and services produced by market producers that are supplied to households, without any transformation, as social transfers in kind

(D.6311 + D.63121 + D.63131).² This implies that general government just pays for goods and services that the sellers provide to households”.

As a result, government final consumption expenditure (P.3) was clearly defined on the basis of the ESA transactions:

$$\begin{aligned} \text{Government final consumption expenditure (P.3)} = & (a) [\text{total output (P.1)} - \text{market output (P.11)} \\ & - \text{output for own final use (P.12)}] + (b) \text{social transfers in kind via market producers (D.6311 +} \\ & \text{D.63121 + D.63131)}. \end{aligned} \quad (1)$$

However, the definition of government final consumption expenditure provided by the (revised) ESA 1995 in 2000 is not self-explanatory and deserves some further considerations.

1.1 Government output and government final consumption expenditure

In order to explain the first part of government final consumption expenditure (P.3) under indent (a) in the ESA 1995 revised definition mentioned above, it is necessary to consider different types of output produced by the general government sector and mention conventions used for valuation of government non-market output.

Government output (P.1) in the production account consists of three types. First, there is market output (P.11) which is produced by market establishments (of non-market institutional units classified in the general government sector) at economically significant prices. Second, there is output for own final use (P.12), i.e. government own account capital formation (included then in government capital formation). Finally, the last component of government output is called other non-market output (P.13), which is after the ESA 1995 revision in 2000 split in two components – payments for the other non-market output (P.131), i.e. output sold at economically insignificant prices, and other non-market output, other (P.132)³ which is provided completely free and typically represents the major portion of total government output.

In the ESA 1995 there are a few specific conventions applied to valuation of non-market output, valuation of total output of non-market producers (establishments) and valuation of total output of a non-market institutional unit.

Government non-market output is valued as a sum of its production costs comprising compensation of employees (D.1), intermediate consumption (P.2), consumption of fixed capital (K.1), other taxes on production payable (D.29), less other subsidies on production receivable (D.39). For all institutional units included in the general government sector the following identity holds:

$$\begin{aligned} \text{Total output (P.1)} = & \text{compensation of employees (D.1)} + \text{intermediate consumption (P.2)} + \text{consumption} \\ & \text{of fixed capital (K.1)} + \text{other taxes on production (D.29 payable)} - \text{other subsidies on production} \\ & \text{(D.39 receivable)} + \text{net operating surplus of market establishments (B.2n)}. \end{aligned} \quad (2)$$

Non-market output provided free (P.132) is derived residually, i.e. any sales of goods and services produced by the general government sector (P.11 + P.131) plus own account capital formation (P.12) are deducted from total government output (P.1). Amount of non-market output provided free (P.132) is then “imputed” in the government accounts as a resource.

$$\begin{aligned} \text{Non-market output provided free (P.132)} = & \text{total output (P.1)} - \text{market output (P.11)} - \text{output for} \\ & \text{own final use (P.12)} - \text{payments for the other non-market output (P.131)}. \end{aligned} \quad (3)$$

² Further in the text and tables referred as “social transfers in kind via market producers”.

³ Further in the text and tables referred as “non-market output provided free”.

Both market output (P.11) and other non-market output which are sold in the market (P.131) have counterparts in other sectors as intermediate consumption of enterprises or as final consumption of households. On the other hand, non-market output provided free (P.132) is also furnished to other sectors as non-market services and in some cases as goods. However, these goods and services are not recorded in the accounts of benefiting sectors. The reason is that there is no mechanism in place how to effectively allocate such government expenditure on goods and services to those who use them as they are not marketed and there is no suitable price for them.

Therefore, by convention, non-market goods and services produced by the government units and provided at economically insignificant prices (equal to P.132) are shown as final consumption (and never as intermediate consumption) of the general government sector itself, i.e. they form the first part of government final consumption expenditure (P.3), which is recorded on the uses side in the use of disposable income account of the general government sector.

1.2 Social transfers in kind provided via market producers

To explain the second part of government final consumption expenditure (P.3) under indent (b) in the ESA 1995 revised definition, for short called social transfers in kind via market producers (D.6311 + D.63121 + D.63131), it is helpful to have a look at the issue of social transfers in kind (D.63).

The classification of social transfers in kind was extended in 2000 in the context of the already above-mentioned regulation (EC) 1500/2000 defining government revenue and expenditure, i.e. this new classification clearly depicted which social transfers in kind are treated as government expenditure (and which they are not). According to the revised classification, social transfers in kind were newly broken down by type of producer, see Figure 1. First, it shows products (goods and services) treated as social transfers in kind which are purchased by the general government sector from market producers and delivered to households without any transformation (D.6311 + D.63121 + D.63131). These social transfers in kind then form the second part of the government final consumption expenditure (P.3) in equation 1.

Figure 1 Social transfers in kind (D.63) in the ESA 1995 (as amended in 2000)

Social transfers in kind (D.63)	Social transfers in kind (D.63) alternative presentation
Social benefits in kind (D.631)	
Social security benefits, reimbursements (D.6311)	
Other social security benefits in kind (D.6312)	
Provided by market producers (D.63121)	(1) Social transfers in kind (related to expenditure on products supplied to households) via market producers (D.6311 + D.63121 + D.63131)
Provided by non-market producers (D.63122)	
Social assistance benefits in kind (D.6313)	
Provided by market producers (D.63131)	(2) Social transfers in kind (related to products supplied to households) via non-market producers (D.63122 + D.63132 + D.632)
Provided by non-market producers (D.63132)	
Transfers of individual non-market products (D.632)	

Source: Compiled by the author, based on regulation (EC) 1500/2000 amending the ESA 1995

Second, the revised classification indicates which goods and services are delivered in the form of social transfers in kind by non-market producers (D.63122 + D.63132 + D.632),⁴ i.e. directly by the non-market units of the general government sector and supplied to households. These transfers in kind are imputed in the government accounts and the way in which they enter government final consumption expenditure is explained in the following chapter 2.

Social transfers in kind (D.63) cover neither social security benefits which are provided under government social insurance schemes nor social assistance paid in cash which are both classified under another

⁴ Further in the text referred as “social transfers in kind via non-market producers”.

item – social benefits other than social transfers in kind (D.62). Finally, there are no social transfers in kind with the rest of the world, by convention.

2 GOVERNMENT INDIVIDUAL AND COLLECTIVE FINAL CONSUMPTION EXPENDITURE

National accounts define two types of government final consumption expenditure (P.3) – individual consumption expenditure (P.31) and collective consumption expenditure (P.32):

$$\text{Government final consumption expenditure (P.3)} = \text{government individual consumption expenditure (P.31)} + \text{government collective consumption expenditure (P.32)}. \quad (4)$$

As regards individual consumption expenditure, the ESA 1995 (paragraph 3.81) defines it as follows: “goods and services for individual consumption (individual goods and services) are acquired by a household and used to satisfy the needs and wants of members of that household”. The value of individual goods and services increases with a number of households and it is assumed that other sectors (enterprises) do not benefit from these goods and services.

In contrast, the ESA 1995 definition of collective consumption expenditure (paragraph 3.83) postulates: “services for collective consumption (collective services) are provided simultaneously to all members of the community or all members of a particular section of the community, such as all households living in a particular region”. From these collective services may benefit also other sectors – they cannot be uniquely attributed to households. The link between a number of beneficiaries (households and others) is only indirect.

The original ESA 1995 stated that the distinction between individual and collective consumption expenditure should be preferably based on the classification of the functions of government (COFOG). However, at the time when the ESA 1995 was adopted, COFOG 1980 was still in force. Although COFOG 1980 was a detailed classification of government functions (see UN, 1980), it did not clearly indicate which classes or groups of government functions were supposed to be treated as individual or collective. Therefore, the ESA 1995 (similarly to the 1993 SNA) only provisionally suggested the possible division between individual and collective functions.

Revised COFOG 1999 was finally issued in 2000 by the United Nations and included a new classification structure composed of 10 basic divisions, further broken down into 69 groups and 125 classes of government functions (see UN, 2000). COFOG 1999 unambiguously distinguished which classes (as well as groups) of government functions shall be treated as individual or collective and the classification was adopted in the ESA 1995 in 2002 (as regulation (EC) 359/2002, replacing the former COFOG 1980).

Individual consumption expenditure (P.31) includes in particular expenditure on goods and services related to health, education or social protection. Expenditure on research and development, general administration of overall government policies, regulation, dissemination of general information and statistics are not included here, as they are treated as collective consumption expenditure. Individual consumption expenditure incurred by the general government sector is then considered as “consumed” by the households sector only (and thus forms a part of actual final consumption of the household sector).

Collective consumption expenditure (P.32) then contains consumption expenditure on goods and services which cannot be univocally attributed either to households or enterprises. It involves for example expenditure on services related to defence, public order and safety, economic affairs, environment protection, housing and community amenities, etc. Collective consumption expenditure covers further research and development, general administration of overall government policies, regulation, dissemination of general information and statistics and expenditure not elsewhere classified.

The ESA 1995 (as well as the 1993 SNA) provides general definitions for these two consumption aggregates, but they do not explain the exact mechanism how to derive government individual and collec-

tive consumption expenditure from government final consumption expenditure as defined in equation 1. When practically calculating individual and collective parts of government final consumption expenditure using COFOG 1999, it is necessary to take into account all elementary components included in the definition of government final consumption expenditure. Government final consumption expenditure from equation 1 can be expressed on the basis of its elementary components (while considering also equations 2 and 3) as follows:

$$\begin{aligned} \text{Government final consumption expenditure (P.3)} = & \text{compensation of employees (D.1) + intermediate consumption (P.2) + consumption of fixed capital (K.1) + other taxes on production (D.29 payable) - other subsidies on production (D.39 receivable) + net operating surplus (B.2n) - market output (P.11) - output for own final use (P.12) - payments for the other non-market output (P.131) + social transfers in kind via market producers (D.6311 + D.63121 + D.63131).} \end{aligned} \quad (5)$$

In principle, each element included in government final consumption expenditure in equation 5 should be cross-classified by function (at the COFOG group level) in order to obtain individual and collective parts of final consumption expenditure and such a cross-classification should be done for all units (or establishments) classified in the general government sector.

First, in equation 5 the last component – social transfers in kind via market producers (D.6311 + D.63121 + D.63131) – is always cross-classified by government functions which have an individual character and thus always treated as a constituent of individual consumption expenditure (P.31).

Second, also other components in equation 5, which correspond to the value of non-market output provided free (P.132), have to be also cross-classified by function for all units (establishments), i.e. either by individual or collective functions. It means that the individual and collective amounts have to be determined and the collective one is then considered as government collective consumption expenditure (P.32). The residual amount is classified by individual functions and regarded as social transfers in kind via (government) non-market producers (D.63122 + D.63132 + D.632), see Figure 1.

Sum of social transfers in kind via market producers (D.6311 + D.63121 + D.63131) and social transfers in kind via non-market producers (D.63122 + D.63132 + D.632) then gives the total amount of social transfers in kind (D.63) which is equal to government individual consumption expenditure (P.31):

$$\begin{aligned} \text{Government individual consumption expenditure (P.31)} = & \text{social transfers in kind via market producers (D.6311 + D.63121 + D.63131) + social transfers in kind via non-market producers (D.63122 + D.63132 + D.632) = social transfers in kind (D.63).} \end{aligned} \quad (6)$$

As regards the effects on the government main balancing item net lending (+)/borrowing (-) (B.9), the imputed amount of non-market output provided free (P.132) on the resources side is counterbalanced on the uses side by collective consumption expenditure (P.32) plus a part of individual consumption expenditure equal to social transfers in kind via non-market producers (D.63122 + D.63132 + D.632). These transactions thus do not have any impact on the government net lending (+)/borrowing (-) (B.9), alternatively called government surplus (+)/deficit (-).

$$\begin{aligned} \text{Non-market output provided free (P.132)} = & \text{government collective consumption expenditure (P.32) + social transfers in kind via non-market producers (D.63122 + D.63132 + D.632).} \end{aligned} \quad (7)$$

On the contrary, social transfers in kind via market producers (D.6311 + D.63121 + D.63131) are in principle not “imputed” (these are accompanied by actual monetary flows) and represent elements of

government expenditure (see chapter 4) having an impact on the government balancing item net lending (+)/borrowing (-) (B.9).

3 GOVERNMENT ACTUAL CONSUMPTION

Actual final consumption (P.4) refers to acquisitions of consumption of goods and services regardless of who pays for them. In general, actual final consumption is divided between individual (P.41) and collective consumption (P.42). In national accounts actual individual consumption is attributed only to the households sector, therefore the general government sector (and NPISHs) do not have any actual individual consumption (P.41 = 0). Government actual consumption (P.4) thus contains only actual collective consumption (P.42).

The difference between final consumption expenditure (P.3) and actual consumption (P.4) lies in the treatment of particular goods and services financed by the general government sector and provided to households as social transfers in kind (D.63). These social transfers in kind are in reality “consumed” by households and thus they are an element of actual individual consumption of households.

Government actual consumption (P.4) is derived from government final consumption expenditure (P.3) by subtracting the value of social transfers in kind (D.63), which are equal to individual consumption expenditure (P.31), and it is therefore equal to government collective consumption expenditure (P.32):

$$\begin{aligned} \text{Government actual final consumption (P.4)} &= \text{government actual collective consumption} \\ &(\text{P.42}) = \text{government final consumption expenditure (P.3)} - \text{social transfers in kind (D.63)} = \text{govern-} \\ &\text{ment collective consumption expenditure (P.32)}. \end{aligned} \quad (8)$$

4 RELATION BETWEEN GOVERNMENT FINAL CONSUMPTION EXPENDITURE AND GOVERNMENT EXPENDITURE

4.1 Definition of government expenditure in the ESA 1995

Government final consumption expenditure (P.3) represents a significant portion of government total expenditure (TE), however, the relation between these two aggregates is relatively complex.

As already mentioned above, the definition of government total revenue and expenditure was not originally included in the ESA 1995. It was introduced in 2000 together with the more detailed classification of other non-market output (P.13) and social transfers in kind (D.63) which allowed derivation of government revenue and expenditure from the sequence of the non-financial accounts, closed by the balancing item net lending (+)/borrowing (-) (B.9). Government total expenditure was defined on the basis of the ESA 1995 transactions, see left column in Figure 2 (for a detailed description on the derivation of government revenue and expenditure from the government non-financial accounts, see Půlpánová, V., 2010 or 2012).

Government expenditures by convention mostly cover actual (not imputed) expenditures,⁵ i.e. certain items like consumption of fixed capital or social transfers in kind via non-market producers (D.63122 + D.63132 + D.632) are thus not included in the definition of government expenditure.

Government expenditure can be further divided in current expenditure and capital expenditure. Government consumption expenditure belongs by its nature under current expenditure. Current expenditure in Figure 2, in addition includes also other important items which are not embraced in government final consumption expenditure, for example property income payable (D.4) (in particular interest), social benefits other than social transfers in kind (D.62) or other current transfers payable (D.7).

⁵ Apart from employers' imputed social contributions (D.122) under compensation of employees (D.1).

Figure 2 Government total expenditure

Government total expenditure (TE) as defined in the (revised) ESA 1995	Government total expenditure (TE) alternative presentation
<i>Current expenditure</i> Intermediate consumption (P.2) Compensation of employees (D.1) Social transfers in kind via market producers (D.631 + D.63121 + D.63131)	<i>Final consumption expenditure (P.3)</i> Individual consumption expenditure (P.31) Collective consumption expenditure (P.32) Adjustment
Other taxes on production, payable (D.29) Property income (D.4) Social benefits other than social transfers in kind (D.62) Subsidies, payable (D.3) Current taxes on income, wealth, etc. (D.5) Other current transfers, payable (D.7) Adjustment for the change in net equity of households in pension funds reserves (D.8)	<i>Remaining current expenditure</i>
<i>Capital expenditure</i> Capital transfers, payable (D.9) Gross capital formation (P.5) Acquisitions less disposals of non-produced non-financial assets (K.2)	<i>Capital expenditure</i>

Source: Compiled by the author, based on regulation (EC) 1500/2000 amending the ESA 1995

Government total expenditure also comprises capital expenditure like capital transfers payable (D.9), gross fixed capital formation (P.51), i.e. acquisitions less disposal of fixed assets, changes in inventories (P.52) and acquisitions less disposals of valuables (P.53). Finally, capital expenditure includes acquisitions less disposals of non-produced non-financial assets (K.2).

4.2 Government expenditure and final consumption expenditure

Government total expenditure (TE) can be expressed as listed in the (revised) ESA 1995, see the left column in Figure 2, or alternatively including government final consumption expenditure (P.3) as shown in the right column of Figure 2, which is a way more convenient for some economic analysis. However, the link between government total expenditure (TE) or more precisely between current expenditure on one hand and government final consumption expenditure (P.3) on the other hand is not intuitive. The reason is that government final consumption expenditure is an accounting convention (closely linked to government production of non-market goods and services, etc.) and cannot be simply expressed as a mere regrouping of selected government current expenditure.

When comparing the list of government current expenditure, see the left column in Figure 2, with components of final consumption expenditure as enumerated in equation 5, it is evident that these components only partly overlap and government total expenditure does not include a number of items which are necessary to compile government final consumption expenditure. The overlap lies in three main categories – intermediate consumption (P.2), compensation of employees (D.1) and social transfers in kind via market producers (D.631 + D.63121 + D.63131).

As a result, the alternative presentation of government expenditure showing government final consumption expenditure, see the right column in Figure 2, has to include an “adjustment” item in order to keep the value of government total expenditure unchanged.

$$Final\ consumption\ expenditure\ (P.3) + adjustment = intermediate\ consumption\ (P.2) + compensation\ of\ employees\ (D.1) + social\ transfers\ in\ kind\ via\ market\ producers\ (D.631 + D.63121 + D.63131). \quad (9)$$

The adjustment item from equation 9 then includes following flows (transactions and other flows) from the government accounts:

$$\text{Adjustment} = - \text{consumption of fixed capital (K.1)} - \text{other taxes on production (D.29 payable)} + \text{other subsidies on production (D.39 receivable)} - \text{net operating surplus (B.2n)} + \text{market output (P.11)} + \text{output for own final use (P.12)} + \text{payments for the other non-market output (P.131)}. \quad (10)$$

5 GOVERNMENT FINAL CONSUMPTION EXPENDITURE AND GOVERNMENT TOTAL EXPENDITURE IN THE CZECH REPUBLIC

Data on government final consumption expenditure and total expenditure are regularly compiled by the Czech Statistical Office. As the most convenient source of these data can be perceived the two tables of the ESA 1995 transmission programme – the ESA 1995 table 2 (general government main aggregates compiled at T+3 and updated at T+9 months) and the ESA 1995 table 11 (general government expenditure by function compiled at T+12 months). Both tables include data not only for the general government sector as a whole, but also by sub-sector (the central government, the local government and the social security funds).

In general, any changes in the institutional coverage of the general government sector due to reclassification of some units in/out of the general government sector, inclusions of newly created non-market units controlled by the government, methodological revisions (see examples below) or enhancing data sources, have an impact on flows included in government final consumption expenditure.

Table 1 Components of government final consumption expenditure (P.3), in CZK billion

	Relation	2006	2007	2008	2009	2010	2011
Total government output (P.1)	1 = 2 + ... + 5	602.7	633.9	663.7	694.4	683.8	667.9
Compensation of employees (D.1)	2	252.4	268.6	279.6	292.9	285.6	279.7
Intermediate consumption (P.2)	3	211.4	218.7	227.9	238.3	234.8	224.0
Consumption of fixed capital (K.1)	4	138.3	145.5	153.7	161.3	160.6	160.6
Other (D.29–D.39+B.2n)	5	0.6	1.1	2.5	1.9	2.7	3.6
Market output and output for own final use (P.11+P.12)	6	20.7	21.6	24.7	25.1	27.3	25.9
Payments for the other non-market output (P.131)	7	61.4	73.6	78.2	79.0	71.4	76.6
Non-market output provided free (P.132)	8 = 1 – 6 – 7	520.5	538.8	560.8	590.2	585.1	565.3
Social transfers in kind via market producers (D.6311+D.63121+D.63131)	9	173.5	187.1	198.6	219.0	222.4	227.6
Government final consumption expenditure (P.3)	10 = 8 + 9	694.0	725.9	759.4	809.3	807.5	792.9
Government final consumption expenditure (P.3), as percentage of GDP	11 = 12 + 13 + 14	20.7	19.8	19.7	21.5	21.3	20.6
Central government	12	7.8	7.5	7.3	8.0	7.7	7.3
Local government	13	7.7	7.2	7.2	7.7	7.6	7.5
Social security funds	14	5.1	5.1	5.2	5.9	5.9	5.9

Source: Czech Statistical Office (ESA 1995 table 2, published 31.10.2012), own calculations

Table 1 indicates components of government final consumption expenditure in recent years for the Czech Republic while employing equations 1, 2 and 3 from chapter 1. First, it shows the identity from equation 2 using the convention on valuation of government non-market output as a sum of production costs. Non-market output provided free (P.132) is derived residually as in equation 3. Second part of government final consumption expenditure is presented by social transfers in kind via market producers (D.6311 + D.63121 + D.63131). Government final consumption (P.3) is then composed of these two main components, as in equations 1, which defines government final consumption expenditure as described in the (revised) ESA 1995.

Compensation of employees (D.1) covers wages and salaries and employers' social security contributions (including imputed social contributions). These amounts encompass only employees working for the units included in the general government sector.

Intermediate consumption (P.2) consists of goods and services consumed as inputs in production process (e.g. energy, material, costs of using rented fixed assets). In addition, expenditures on military equipment which is not used for civilian purpose are included here. Sales of such military equipment are then recorded as negative intermediate consumption. Intermediate consumption includes also financial intermediation services indirectly measured (FISIM). Allocation of FISIM was implemented in Czech national accounts within the occasional revision carried out in 2006 when part of interest (D.41) was reclassified as intermediate consumption (P.2) which increased government final consumption expenditure (although leaving government total expenditure untouched).

Consumption of fixed capital (K.1) is currently estimated according to the perpetual inventory method (PIM) for which the complete stocks of fixed assets owned by the general government sector are necessary as well as the probable average economic life by type of asset. Figures on consumption of fixed capital were substantially revised in 2004 as the stock of government fixed capital was enlarged to include assets owned by the general government sector as roads, highways and railway tracks. The Czech Statistical Office at the same time implemented the standard PIM. This revision had a considerable impact on government final consumption expenditure in absolute terms, but it did not influence government total expenditure (TE) or net lending (+)/borrowing (-) (B.9) of the general government sector.

Social transfers in kind via market producers (D.6311 + D.63121 + D.63131) include mainly health care expenditure of health insurance companies (included in the social security funds sub-sector). For a detailed description of flows included in Table 1 for the Czech Republic, see e.g. GNI inventory in Czech Statistical Office (2006) or explanatory notes attached to the ESA 1995 Table 2.

Share of non-market output provided free (P.132) in government final consumption expenditure (P.3) is above 70% and gradually decreases in time while share of social transfers in kind via market producers (D.6311 + D.63121 + D.63131) is less than 30% and has an increasing tendency. In 2010 and in particular in 2011 government final consumption expenditure declined in absolute terms. In the long term, share of government consumption expenditure in GDP has oscillated around 21%.

Government final consumption expenditure (P.3) is broken down into individual (P.31) and collective final consumption expenditure (P.32). Such a split is done according to the (revised) ESA 1995 on the basis of COFOG 1999 for the years 2004 up to now. Due to some incomplete government data sources by function, approximation methods were developed for the years 1995–2003 using in particular the branch classification (NACE). These data have been then revised applying functional classification.

Government final consumption expenditure (P.3) by function, i.e. classified in 10 basic divisions which are further split up into 69 detailed groups, is available within the ESA 1995 transmission programme in the ESA 1995 table 11.⁶ From this table can be derived individual (P.31) and collective final consump-

⁶ The ESA 1995 table 11 includes not only government final consumption expenditure, but all government expenditures cross-classified by function (on a group level).

tion expenditure (P.32) as each of these 69 groups of government functions is by convention deemed either as individual or collective.

Table 2 shows government individual consumption expenditure on goods and services (P.31) by function (on a division level). These consumption expenditures relate to the following areas – health, recreation, culture and religion (but only for recreational, sporting and cultural services), education and social protection. Final consumption expenditure on research and development, general administration, regulation, dissemination of general information and statistics incurred in these areas are not included in the figures in Table 2 because they are treated as government collective consumption expenditure.

Table 2 Government individual consumption expenditure (P.31) by function, in CZK billion

	Relation	2006	2007	2008	2009	2010	2011
Health	1	172.3	187.0	198.9	219.6	222.1	226.1
Recreation, culture and religion	2	14.8	15.4	16.5	18.2	19.2	19.1
Education	3	136.8	141.1	145.4	151.1	149.8	147.3
Social protection	4	20.9	19.7	18.9	21.6	18.4	19.7
Individual consumption expenditure (P.31)	5 = 1 + ... + 4	344.8	363.2	379.6	410.5	409.5	412.1
Individual consumption expenditure (P.31), as percentage of GDP	6	10.3	9.9	9.9	10.9	10.8	10.7

Note: Individual consumption expenditure (P.31) equals social transfers in kind (D.63).

Source: Czech Statistical Office (ESA 1995 table 11, published 31.12.2012), own calculations

Table 3 Government collective consumption expenditure (P.32) by function, in CZK billion

	Relation	2006	2007	2008	2009	2010	2011
General public services	1	76.7	80.2	81.5	104.0	98.5	98.4
Defence	2	42.5	42.5	42.3	41.4	39.9	37.9
Public order and safety	3	74.5	78.9	82.7	84.0	84.9	78.5
Economic affairs	4	112.9	117.3	125.1	107.6	110.7	97.2
Environment protection	5	16.7	17.0	17.8	25.3	26.4	26.1
Housing and community amenities	6	7.1	7.1	7.8	11.3	12.1	11.5
Health	7	7.6	8.2	9.6	10.6	10.7	9.8
Recreation, culture and religion	8	2.0	2.1	2.6	3.4	3.1	2.9
Education	9	2.3	2.2	3.0	3.2	3.0	10.2
Social protection	10	7.0	7.2	7.5	8.1	8.5	8.4
Collective consumption expenditure (P.32)	11 = 1 + ... + 10	349.2	362.7	379.8	398.8	398.0	380.8
Collective consumption expenditure (P.32), as percentage of GDP	12	10.4	9.9	9.9	10.6	10.5	9.9

Note: Government collective consumption expenditure (P.32) equals government actual final consumption (P.4).

Source: Czech Statistical Office (ESA 1995 table 11, published 31.12.2012), own calculations

Table 3 then shows government collective consumption expenditure (P.32) by function (on a division level). First, collective consumption expenditure refers to general public services (e.g. legislative, financial, fiscal or external affairs, basic research), defense (e.g. military and civilian), public order and

safety, economic affairs (includes e.g. transport, agriculture, commercial and labour affairs), environment protection, housing and community amenities, and also recreation, culture and religion (only for broadcasting, publishing, religious and other community services). Data for these areas include also consumption expenditure on research and development, general administration, regulation, dissemination of general information and statistics. Second, government collective consumption expenditure covers furthermore expenditure concerning health, education and social protection, but only as regards their research and development, general administration, regulation, etc. (see above).

Share of government individual (P.31) and collective consumption expenditure (P.32) in government consumption expenditure (P.3) is relatively stable and only slightly fluctuates around 50%. Amounts of government individual and collective consumption expenditure are currently not fully consistent in the ESA 1995 tables 2 and the ESA 1995 table 11, particularly for the years 1995–2003.⁷ The data in the ESA 1995 table 11 for individual and collective consumption expenditure will be updated by the Czech Statistical Office in order to fully align with these breakdowns shown in the ESA 1995 table 2.

Table 4 captures the alternative presentation of government total expenditure (TE) for the Czech Republic, i.e. contains government final consumption expenditure (P.3). This presentation requires that an adjustment item is included in the breakdown of government total expenditure (its content is described in equation 10). Remaining current expenditures cover in particular social benefits other than social transfers in kind (D.62), which are paid to households usually in cash (e.g. pension, employment or sick leave benefits, etc.), furthermore, property income payable (D.4), especially interest payments (D.41), subsidies (D.3), other current transfers payable (D.7), other taxes on production (D.29) and taxes on income and wealth (D.5) payable by the general government sector.

Table 4 Government expenditure showing final consumption expenditure, in CZK billion

	Relation	2006	2007	2008	2009	2010	2011
Final consumption expenditure (P.3)	1 = 2 + 3	694.0	725.9	759.4	809.3	807.5	792.9
Individual (P.31)	2	344.8	363.2	379.6	410.5	409.5	412.1
Collective (P.32)	3	349.2	362.7	379.8	398.8	398.0	380.8
Adjustment	4	-56.7	-51.5	-53.3	-59.1	-64.6	-61.7
Taxes, payable (D.29+D.5)	5	3.2	3.6	2.6	2.2	2.5	3.1
Property income, payable (D.4)	6	35.4	39.9	39.5	47.5	51.1	52.6
Social benefits other than social transfers in kind (D.62)	7	408.0	456.3	476.8	509.3	517.8	526.9
Subsidies, payable (D.3)	8	60.2	60.8	62.3	74.7	71.3	79.8
Other current transfers, payable (D.7)	9	44.0	49.7	56.3	57.1	60.6	63.7
Capital transfers, payable (D.9)	10	119.3	78.5	104.3	89.9	91.9	87.1
Gross capital formation (P.5)	11	150.2	148.7	175.3	192.5	163.5	140.9
Net acquisitions of non-produced non-financial assets (K.2)	12	-50.7	-9.0	-39.7	-43.8	-39.9	-32.2
Government total expenditure (TE)	13 = 1 + 4 + ... + 12	1 407.0	1 503.1	1 583.5	1 679.6	1 661.8	1 653.2
Government total expenditure (TE), as percentage of GDP	14	42.0	41.0	41.1	44.7	43.7	43.0

Note: Transactions in D.4, D.7 and D.9 within each sub-sector and also between sub-sectors are consolidated (eliminated).

Source: Czech Statistical Office (ESA 1995 table 2, published 31.10.2012), own calculations

⁷ Total amounts of government final consumption expenditure (P.3) in the ESA 1995 table 2 and the ESA 1995 table 11 are consistent.

Capital expenditure covers capital transfers (D.9), gross fixed capital formation (P.5) dominated by gross fixed capital formation (P.51) and finally acquisitions less disposals of non-produced non-financial assets (K.2). The latter item includes e.g. transactions in land, but in the last few years particularly transactions in intangible non-produced assets like sales of radio spectra (UMTS licenses) or sales of emission permits.

It should be stressed that by convention government expenditure (TE) comprises disposals of non-financial assets which reduce government expenditure, sometimes to a great extent as it has been the case in the Czech Republic. Thus for the purpose of fiscal analysis it would be preferable to show large and well identifiable sales of non-financial assets (perceived by many economists as government revenue) as memorandum items in order to enable a proper assessment of the evolution of government expenditure. Sector accounts compiled by the Czech Statistical Office are very detailed and such information can be extracted from them. Unfortunately, these data are not available within the ESA 1995 transmission programme and thus EU countries cannot be compared in this respect.

Finally, elements of government final consumption expenditure (P.3) and government total expenditure (TE), shown in Table 1 and Table 4, are also provided by the Czech Statistical Office on a quarterly basis within the ESA 1995 transmission programme (the ESA 1995 table 25 – quarterly non-financial accounts of general government) and compiled regularly at T+3 months.

6 GOVERNMENT CONSUMPTION IN 2008 SNA AND ESA 2010

Changing economic environment, further research in national accounting and increasing needs of data users induced revisions of the national accounts standards. In 2009 the 1993 SNA was succeeded by the 2008 SNA. Also the European version of national accounts – the still valid ESA 1995 – will be replaced in 2014 by the forthcoming ESA 2010 (currently planned to be formally approved in 2013).

The definition of government final consumption expenditure in the 2008 SNA somewhat changed and newly includes non-market services provided by the central bank. This revision is linked to an agreement to show non-market output of the central bank which represents non-market services – in particular monetary policy services and possibly also supervisory services. As the 2008 SNA kept the convention that non-financial and financial corporations (including the central bank) do not have any final consumption, these non-market activities are considered as acquisitions of collective services by the general government sector and shown in the government accounts. Such a flow is then counterbalanced by a current transfer from the central bank to the general government sector. The ESA 2010 however did not accept this revision and thus it will methodologically differ from the 2008 SNA in this respect.

The 2008 SNA did not introduce any further split of non-market output and therefore, government consumption is defined in more general terms. In contrast, the ESA 2010 will keep the detailed classification of non-market output as it is deemed necessary for many purposes. Furthermore, both recent national accounts manuals simplified the classification structure of social transfers in kind (D.63) which are newly split up only into two basic items: social transfers in kind – non-market production (D.631) and social transfers in kind – purchased market production (D.632), similarly to the alternative presentation of social transfers in kind shown in Figure 1.

Constituents of final consumption expenditure will be affected by methodological revisions introduced in both national accounting systems. For example, the boundary of fixed assets was broadened in the 2008 SNA and the ESA 2010 and covers e.g. intellectual property rights (including research and development, databases, etc.) or weapons system. As a result, military expenditure on weapons systems (e.g. vehicles, aircrafts) as well as items delivered by these systems will be reclassified from intermediate consumption to gross fixed capital formation. Also research and development, which were previously treated as a part of intermediate consumption, will be recognized as gross fixed capital formation. Consumption of fixed capital will need to be estimated for all these newly included fixed assets. How-

ever, the ESA 2010 will apparently include a provision that reclassification of research and development will only be implemented once a sufficient degree of harmonization and reliability is achieved by EU countries.

During the preparation of the 2008 SNA, an extensive discussion took place on cost of capital services in relation to non-financial assets owned by government units (and other non-market producers). In the 1993 SNA as well as in the ESA 1995, services from assets used in non-market production were reflected solely in output as consumption of fixed capital, see equation 2. That means, no return to capital (opportunity cost of capital) as regards these assets was considered. In other words, the role of non-financial assets used in non-market production was not fully recognized, which is creating a conceptual inconsistency compared to market producers (for details see e.g. Harrison, 2004). To remove this inconsistency, it was discussed whether to replace consumption of fixed capital with capital services which are approximately equal to consumption of fixed capital plus return to capital. Regarding the general government sector, this treatment would imply an increase in government non-market production and consequently in government consumption. However, the cost of capital services for non-market producers was in the end included neither in the final version of the 2008 SNA nor in the ESA 2010. It was in particular due to expected problems with practical implementation and resistance of many European countries.

Last but not least, the institutional coverage of the general government sector will be reviewed to be consistent with some new or more detailed guidelines provided by the 2008 SNA and the ESA 2010. It is a crucial issue because any inclusion or exclusion of an institutional unit in/from the general government sector has an impact on government production and consumption as well as on government expenditure. Moreover, the ESA 2010 (similarly to the 2008 SNA) will finally provide a detailed discussion about the notion of a control by the government units of non-profit institutions and public corporations. Government control plays an important role in deciding whether a non-market institutional unit should be classified in the general government sector or not and thus more explicit guidelines for control may lead to reclassifications of institutional units in/out of the general government sector.

CONCLUSION

The concept of government final consumption expenditure in national accounts is an accounting convention which is not easily interpretable. The SNA manuals (both 1993 and 2008 versions) provide rather general guidance, while the ESA 1995 (since 2000) and the forthcoming ESA 2010 are more specific and define government final consumption expenditure on the basis of elementary transactions.

Government final consumption expenditure includes two basic elements. First, there is expenditure related to production of government non-market goods and services provided completely free (and derived residually). Such output cannot be practically shown as intermediate consumption or final consumption of other sectors. Valuation of non-market output is done indirectly i.e. by convention as a sum of production costs (in particular of wages and salaries, intermediate consumption and consumption of fixed capital), while any partial payments for non-market output are deducted. The second part of government final consumption expenditure is represented by goods and services purchased by the government units from market producers which are provided to households sector as social transfers in kind.

Derivation of government individual and collective consumption expenditure breakdowns is not described in detail in the national accounts manuals. It is a relatively complex statistical exercise, involving cross-classifications of all transactions, which are included in government final consumption expenditure, by functions of government (COFOG 1999) and represents, inter alia, an important element for compilation of actual consumption expenditure of the general government and households sector.

Concepts such as government final consumption expenditure (P.3), government total expenditure (TE) or government current expenditure have to be strictly distinguished as they are different in their scope, coverage of transactions as well as in respect of inclusion or exclusion of imputed flows.

Once the conventions used and elementary components (and their content) making up government final consumption are well understood, then the methodological revisions already carried out e.g. FISIM allocation or inclusions of new fixed assets in the calculation of consumption of fixed capital; or revisions planned in the context of the ESA 2010 implementation like for instance reclassification of some military expenditure or research and development, cease to be surprising for data users and their impact on the value of government output and consequently on the value of government final consumption expenditure become comprehensible.

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