Compilation of Non-Financial Balances in the Czech Republic[1]

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Abstract

The System of National Accounts in the Czech Republic consists of three main parts — institutional sector accounts, input-output tables and balances of non-financial assets. All three parts are compiled interactively by common time schedule. The article deals with balances of non-financial assets and their relation to core institutional sector accounts and explains why the third parallel part of SNA in the Czech Republic was build, describes its weaknesses and future development.

Keywords

National accounts, sector accounts, non-financial assets

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INTRODUCTION

The System of National Accounts in the Czech Republic consists of three main parts — institutional sector accounts, input-output tables and balances of non-financial assets. All three parts are compiled interactively by common time schedule. The article deals with the balances of non-financial assets. The role of these balances is described in the next three parts. The first part explains their relation to the core sector accounts or how and why the links between balances of non-financial assets and core sector accounts are resolved. In the second part each balance is described in detail and in the third part the benefits of balances of non-financial assets are evaluated.

1 BALANCES OF NON-FINANCIAL ASSETS AS AN INTEGRAL PART OF NATIONAL ACCOUNTS SYSTEM IN THE CZECH STATISTICS

Balances of non-financial assets form an integral part of the Czech National Accounts System. They were created as a parallel system to core sector accounts, extending the information about stocks and flows of each type of non-financial assets in each institutional sector by industry.

[1] The article is based on the paper presented on the "Conference on strengthening sectoral position and flow data in the macroeconomic accounts", February 28th — March 2nd 2011. The Conference was organized by IMF jointly with OECD for G 20 and other advanced economies to discuss prospective of further enhancement of sectoral accumulation accounts and balance sheets, as well as flow of funds on from whom to whom basis. The IMF valued highly the Czech experience and invited the Czech Statistical Office to present a paper on practices and challenges in compiling sectoral non financial balance sheets and accumulation accounts.

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Balances of non-financial assets, recording stocks and flows of non-financial assets, have always been an important part of the Czechoslovak and Czech statistics. In former Czechoslovakia, there were annually compiled balances of fixed capital in historical and replacement prices and structured by four groups of fixed assets. Stocks and changes of inventories were recorded and evaluated separately. In the early 1980s, national wealth was estimated, including natural resources. However, there was not any direct integration of these balances and occasional estimates — the mutual linkage to flows of goods and services, and to the income and financial flows was weak. Input-output tables played a specific integration role. However, they have been compiled in five-year periodicity. Formerly used "Material product system" (MPS) provided much macroeconomic information, but it was not a complete and fully integrated system.

Transition to the system of national accounts in the early 1990s in the Czechoslovak statistics and the revision of former international national accounts standards in the same period enabled to create a comprehensive and fully integrated system of accounts and tables.

Even before the official approval of the SNA 1993 (UN, IMF, OECD, Eurostat and World Bank, 1993), the Federal Statistical Office started to implement it. Collection and processing of financial statements (balance sheets and profit / loss accounts) for all businesses belonged to responsibility of former Federal, Czech and Slovak Statistical Offices. These data sources allowed for establishing of full sequence of accounts, including balance sheets, for all the institutional sectors and subsector, and also by industries.

In the first stage of implementation of national accounts, the Czech Statistical Offices (CZSO) focused on building a complete, fully integrated system of national accounts, despite of being aware that the contents of the individual items does not match exactly the methodological requirements of SNA. The first complete, fully integrated system of national accounts was compiled and published for the year 1994. It included all current accounts, accumulation accounts and balance sheets for five institutional sectors and eleven sub-sectors. Non-financial assets were broken down according to the non-financial assets classification done by ESA 1995 (Eurostat, 1996) (not all types of non-financial assets were separated correctly, mainly non-residential buildings and other structures ware not distinguished and four types of land were not divided exactly by classification).[3]

From the beginning of the implementation of the national accounts there was an effort to recognize the acquisition of new and existing fixed assets and to balance the flows (acquisition / disposal) of existing fixed assets among institutional sectors and sub-sectors. This approach was important due to profound changes in the Czech economy. Massive restitution of property and privatisation for low prices prompted us to distinguish those flows "with" and "without" payments and to estimate differences against market prices to record as "other capital transfers" in order to avoid misinterpretation of balance item of the capital account "Net lending / net borrowing".

The original idea was to hold the same and complete structure in both systems, with the extension by industrial breakdown in balances of non-financial assets.[4] All of required breakdowns of non-financial assets are shown in the Figure 1.

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[3] With capturing of the land in the proper valuation and classification, in its nature, we have still problems. Before 1993 the land was not included in the balance sheets of companies, because neither valuated.

[4] Non-financial assets are usually classified according to three classifications: (a) by the classification of non-financial assets, i.e. by their nature, (b) by the institutional sector classification of their users, and (c) by the industrial activity classification of their owners. However, also other criteria are important for complete characteristics of stocks and flows of non-financial assets: the way of acquisition (new or existing fixed assets, payable or free of charge) and reason of other flows (by classification of other changes in volume of assets).

Figure 1 Needed breakdowns of non-financial assets[4]

Account	Structure by classifications	Institutional sectors (5) and sub-sectors (11)				
		S.11	S.12	S.13	S.14	S.15
		by industries (120)				
Opening balance sheet	by types of assets (32)					
Acquisition of non-financial assets account	Acquisition by types of assets (32) by new/used fixed assets Disposal by types of assets (32) Consumption by types of fixed assets (11)					
Other changes in volume of assets account	by reason of changes (7) by types of assets (32)					
Revaluation accounts	Nominal holding gains by types of assets (32) Neutral holding gains by types of assets (32) Real holding gains by types of assets (32)					
Closing balance sheet	by types of assets (32)					

Source: Czech Statistical Office, own construction

It is evident that the combination of all breakdowns of the non-financial assets too complicates the both systems, the balances of non-financial assets and core sector accounts. That's why some simplifications were made, unfortunately not systematically and not by the same manner in all five accounts of balance in both systems. So, the question of which items to keep in the core sector accounts and

Table 1 Closing balance sheet, 2008, Czech Republic (CZK, billions)

Code	Item	Total economy S.1	Non-fin. corp. S.11	Financial corp. S.12	General govern. S.13	House-holds S.14	NPISH S.15
AN	**Non-financial assets**	**16 668.9**	**7 867.4**	**212.4**	**4 794.8**	**3 694.8**	**99.6**
AN.1	**Produced assets**	**15 598.8**	**7 449.2**	**188.3**	**4 469.9**	**3 400.5**	**91.0**
AN.11	**Fixed assets**	**13 814.7**	**6 153.3**	**176.7**	**4 268.6**	**3 126.7**	**89.4**
AN.1111	Dwellings	3 490.3	478.1	1.1	266.0	2 743.1	2.1
AN.1112	Other buildings and structures	8 095.6	3 805.3	141.3	3 863.5	206.2	79.3
AN.11121	Non-residential buildings	6 251.5	3 330.3	141.3	2 494.4	206.2	79.3
AN.11122	Other structures	1 844.1	475.0	0.0	1 369.1	0.0	0.0
AN.1113	Machinery and equipment	2 116.1	1 781.9	24.2	131.5	170.5	8.0
AN.11131	Transport equipment	588.4	464.7	7.4	31.7	83.9	0.7
AN.11132	Other machinery and equipment	1 527.7	1 317.2	16.8	99.8	86.6	7.3
AN.1114	Cultivated assets	20.1	18.4	0.0	0.3	1.4	0.0
AN.11141	Livestock for breeding, dairy, …	18.1	16.9	0.0	0.1	1.0	0.0
AN.11142	Vineyards, orchards and other …	2.0	1.4	0.0	0.2	0.4	0.0
AN.1121	Mineral exploration	12.9	12.6	0.0	0.3	0.0	0.0
AN.1122	Computer software	52.9	33.8	10.1	7.0	2.0	0.1
AN.1123	Entertainment, literary … originals	27.0	23.4	0.0	0.0	3.6	0.0
AN.1129	Other intangible fixed assets	0.0	0.0	0.0	0.0	0.0	0.0
AN.12	**Inventories**	**1 722.7**	**1 294.0**	**11.2**	**198.9**	**217.3**	**1.4**
AN.121	Materials and supplies	313.2	250.2	10.6	40.7	11.4	0.2
AN.122	Work in progress	868.5	587.6	0.0	133.1	146.7	1.1
AN.1221	Work in progress on cultivated ass.	678.8	406.7	0.0	132.9	138.3	1.0
AN.1222	Other work in progress	189.6	180.9	0.0	0.2	8.4	0.1
AN.123	Finished goods	106.8	103.1	0.0	0.5	3.3	0.0
AN.124	Goods for resale	434.3	353.2	0.5	24.7	55.9	0.0
AN.13	**Valuables**	**61.4**	**1.8**	**0.5**	**2.4**	**56.5**	**0.1**
AN.131	Precious metals and stones	34.7	0.0	0.0	0.0	34.7	0.0
AN.132	Antiques and other art objects	26.6	1.8	0.5	2.4	21.8	0.1
AN.139	Other valuables	0.0	0.0	0.0	0.0	0.0	0.0
AN.2	**Non-produced assets**	**1 070.1**	**418.2**	**24.0**	**324.9**	**294.3**	**8.6**
AN.211	Land	963.4	327.9	9.4	323.3	294.3	8.6
AN.2111	Land underlying buildings and structures	593.2	201.7	9.1	178.7	196.6	7.1
AN.2112	Land under cultivation	316.7	99.1	0.0	118.4	97.7	1.5
AN.2113	Recreational land and …	0.0	0.0	0.0	0.0	0.0	0.0
AN.2119	Other land and associated surf	53.5	27.1	0.2	26.2	0.0	0.0
AN.212	Subsoil assets	3.2	3.2	0.0	0.0	0.0	0.0
AN.2121	Coal, oil and natural gas reserves	2.0	2.0	0.0	0.0	0.0	0.0
AN.2122	Metallic mineral reserves	0.0	0.0	0.0	0.0	0.0	0.0
AN.2123	Non-metallic mineral reserves	1.2	1.2	0.0	0.0	0.0	0.0
AN.213	Non-cultivated biological resources	0.0	0.0	0.0	0.0	0.0	0.0
AN.214	Water resources	0.0	0.0	0.0	0.0	0.0	0.0
AN.221	Patented entities	0.0	0.0	0.0	0.0	0.0	0.0
AN.222	Leases and other transferable contracts	102.0	87.2	14.7	0.2	0.0	0.0
AN.223	Purchased goodwill	0.0	0.0	0.0	0.0	0.0	0.0
AN.229	Other intangible non-produced ass.	1.5	0.0	0.0	1.5	0.0	0.0

Source: Czech Statistical Office, own calculation

Table 2 Acquisitions of non-financial assets, 2008, Czech Republic (CZK, billions)

Code	Item	Total economy S.1	Non-fin. corp. S.11	Financial corp. S.12	General govern. S.13	House-holds S.14	NPISH S.15
Net acquisitions of non-financial assets, total		**286.3**	**189.4**	**2.3**	**–7.6**	**99.9**	**2.3**
P.51	**Gross fixed capital formation**	**883.2**	**497.9**	**16.1**	**182.5**	**181.8**	**4.7**
P.511	Acquisitions less disposals of tangible fixed assets	836.0	466.0	10.2	176.9	178.2	4.7
P.5111	Acquisitions of new tangible fixed assets	888.7	540.0	14.5	186.4	142.5	5.2
P.5112	Acquisitions of existing fixed assets	303.8	16.0	0.0	34.8	252.8	0.2
	of it: free, without payments	57.4	16.6	0.6	23.9	16.0	0.3
P.5113	Disposals of existing tangible fixed assets (–)	–356.5	–90.0	–4.3	–44.3	–217.1	–0.7
	of it: free, without payments	–57.4	–24.1	–0.6	–31.1	–1.4	–0.3
P.512	Acquisitions less disposals of intangible fixed assets	44.9	31.5	5.9	5.5	2.0	0.0
P.5121	Acquisitions of new intangible fixed assets	46.0	32.5	5.9	5.5	2.0	0.0
P.5122	Acquisitions of existing intangible fixed assets	0.2	0.0	0.0	0.2	0.0	0.0
P.5123	Disposals of existing intangible fixed assets (–)	–1.3	–1.1	0.0	–0.2	0.0	0.0
P.513	Addition to the value of non-produced non-financial assets	2.2	0.5	0.0	0.1	1.6	0.0
P.5131	Major improvements to non-produced non-financial assets	0.1	0.0	0.0	0.1	0.0	0.0
P.5132	Costs of ownership transfer on non-produced non-financial assets	2.1	0.4	0.0	0.0	1.6	0.0
K.1	**Consumption of fixed capital (–)**	**–639.0**	**–376.4**	**–16.4**	**–152.5**	**–91.3**	**–2.6**
of it:	Consumption of tangible fixed capital (–)	–600.4	–348.9	–11.1	–149.0	–89.0	–2.5
	Consumption of intangible fixed capital (–)	–38.6	–27.5	–5.4	–3.5	–2.3	0.0
P.52	**Changes in inventories**	**47.0**	**40.3**	**2.1**	**–0.9**	**5.5**	**0.0**
of it:	Changes in inventories of materials and supplies	2.0	2.1	1.8	–2.9	1.1	0.0
	Changes of work in progress	12.8	10.5	0.0	0.9	1.4	0.0
	Changes in inventories of finished goods	9.8	9.3	0.0	0.0	0.5	0.0
	Changes of inventories of goods for resale	22.3	18.4	0.2	1.1	2.6	0.0
P.53	**Acquisitions less disposals of valuables**	**3.5**	**0.1**	**0.0**	**0.1**	**3.3**	**0.0**
K.2	**Acquisitions less disposals of non-financial non-produced assets**	**–8.3**	**27.4**	**0.5**	**–36.9**	**0.5**	**0.1**
K.21	Acquisitions less disposals of tangible non-produced assets	0.0	–2.8	0.3	2.3	0.2	0.1
K.211	Acquisitions of land and other tangible non-produced assets	68.7	12.4	0.9	7.5	47.7	0.2
K.212	Disposals of land and other tangible non-produced assets	–68.7	–15.2	–0.6	–5.2	–47.5	–0.2
K.22	Acquisitions less disposals of intangible non-produced assets	-8.3	30.3	0.2	–39.2	0.4	0.0
K.221	Acquisitions of intangible non-produced assets	55.7	55.0	0.2	0.1	0.4	0.0
K.222	Disposals of intangible non-produced assets	–64.1	–24.8	0.0	–39.3	0.0	0.0

Source: Czech Statistical Office, own calculation

which items to move to the balances of non-financial assets, or vice versa, has been solved in quite a pragmatic way.

In opening and closing balance sheets of both systems the complete detailed structure of the non-financial assets is held. An overview of all 32 groups of non-financial assets by five sector accounts is shown in the Table 1.

In Acquisition of non-financial assets account the structure of assets is solved differently in both systems. While in individual balances of non-financial assets the complete detailed breakdown of assets is hold, in core sector accounts the acquisition is not structured by the detailed breakdown of non-financial assets (except for the four types of inventory). On the other side, this simplification allows the complete view on acquisition of non-financial assets by institutional sectors and sub-sectors and also on balance of acquisitions and disposal of existing fixed assets. Table 2 serves an example of the full structure of the acquisition of non-financial assets account. Real data for the Czech Republic for the year 2008 are recorded there.

Other changes of each group of assets recorded in "Other changes in volume of assets account" should be structured by reason of these changes (K.3 to K.12). This requirement brings very complicated non-transparent tables because the combination of four classifications (sector x industry x assets x reason of changes). Besides, to receive information about other changes in volume is one of the most complicated and not fully solved issues. None of both systems records complete structure of other changes in volume of assets. In core sector accounts a detailed structure of assets (except inventories) is missing. So, the other volume changes are recorded by each type of the reason but not by detailed structure of assets, however, in structure for five aggregated groups of non-financial assets (and also for four types of inventories). In balances of non-financial assets the reasons of other volume changes are missing. They are recorded in one aggregate item only, because more detailed breakdown would complicate these balances. The Table 3 provides an overview of the changes by reason in 2008.

Table 3 Other changes in volume, 2008, Czech Republic (CZK, billions)

Code	Item	Total Economy S.1	Non-fin. corp. S.11	Financial corp. S.12	General govern. S.13	House-holds S.14	NPISH S.15
AN	**Non-financial assets, total**	**–43.4**	**–46.5**	**–1.7**	**–0.4**	**6.4**	**–1.2**
of it:	K.3 Economic appearance of non-produced assets	42.9	3.0	0.0	39.9	0.0	0.0
	K.4 Economic appearance of produced assets	0.0	0.0	0.0	0.0	0.0	0.0
	K.6 Economic disappearance of non-produced assets	–34.3	–34.0	0.0	0.0	–0.4	0.0
	K.7 Catastrophic losses	0.0	0.0	0.0	0.0	0.0	0.0
	K.8 Uncompensated seizures	0.0	0.0	0.0	0.0	0.0	0.0
	K.9 Other volume changes in non-financial assets n.e.c.	–52.1	–15.9	–1.7	–40.5	7.3	–1.2
	K.12 Changes in classifications and structure	0.0	0.3	0.0	0.2	–0.5	0.0

Source: Czech Statistical Office, own calculation

In Revaluation accounts the structure of assets is solved identically in both systems. The breakdown of non-financial assets follows the full complete structure like in balance sheets. In addition, the revaluation account in "core" sector accounts is divided into two sub-accounts "Neutral holding gains / losses account" and "Real holding gains / losses account". It gives to users an overview of the price impact on net worth by individual groups of non-financial assets. See the Table 4.

Table 4 Revaluation accounts, 2008, Czech Republic (CZK, billions)

Table 4A Revaluation accounts: Nominal holding gains account, 2008, Czech Republic

Code	Item	Total economy S.1	Non-fin. corp. S.11	Financial corp. S.12	General govern. S.13	House-holds S.14	NPISH S.15
AN	**Non-financial assets**	**363.9**	**58.5**	**7.4**	**164.8**	**129.0**	**4.1**
AN.11	Fixed assets	430.5	134.8	5.2	167.3	120.0	3.1
AN.12	Inventories	–209.0	–127.0	0.0	–43.3	–38.4	–0.3
AN.13	Valuables	0.0	0.0	0.0	0.0	0.0	0.0
AN.21	Tangible non-produced assets	136.0	45.5	1.3	40.6	47.4	1.2
AN.22	Intangible non-produced assets	6.3	5.2	0.9	0.2	0.0	0.0

Table 4B Revaluation accounts: Neutral holding gains account, 2008, Czech Republic

Code	Item	Total economy S.1	Non-fin. corp. S.11	Financial corp. S.12	General govern. S.13	House-holds S.14	NPISH S.15
AN	**Non-financial assets**	**532.9**	**254.3**	**6.8**	**153.9**	**114.8**	**3.1**
AN.11	Fixed assets	436.4	195.8	5.7	135.2	96.9	2.8
AN.12	Inventories	61.5	45.0	0.3	8.0	8.1	0.1
AN.13	Valuables	1.9	0.1	0.0	0.1	1.8	0.0
AN.21	Tangible non-produced assets	29.9	10.8	0.3	10.5	8.1	0.3
AN.22	Intangible non-produced assets	3.3	2.8	0.5	0.0	0.0	0.0

Table 4C Revaluation accounts: Real holding gains account, 2008, Czech Republic

Code	Item	Total economy S.1	Non-fin. corp. S.11	Financial corp. S.12	General govern. S.13	House-holds S.14	NPISH S.15
AN	**Non-financial assets**	**–169.1**	**–195.8**	**0.6**	**11.0**	**14.3**	**0.9**
AN.11	Fixed assets	–5.8	–61.0	–0.5	32.2	23.2	0.3
AN.12	Inventories	–270.4	–172.0	–0.3	–51.3	–46.5	–0.3
AN.13	Valuables	–1.9	–0.1	0.0	–0.1	–1.8	0.0
AN.21	Tangible non-produced assets	106.1	34.7	1.0	30.1	39.3	1.0
AN.22	Intangible non-produced assets	3.1	2.5	0.4	0.1	0.0	0.0

Source: Czech Statistical Office, own calculation

Application of different structures in individual accounts in two systems was mainly due to technical limitations. The technical equipment of the CZSO in the 1990's required too many compromises between the effort to compile a complete set of accounts with complete breakdowns and capacity available.

The result of this compromise is a narrowed view on economic cycle of non-financial assets in detail structures of all used classifications. The entire economic cycle is visible only in several aggregated levels. Table 5 serves an example showing the complete balance by five aggregated groups of non-financial assets.

2 BALANCES OF NON-FINANCIAL ASSETS

Since 1995, the CZSO has annually compiled and published four balances of non-financial assets — balance of fixed assets, balance of inventories, balance of valuables and balance of non-produced assets. The balances are compiled for each institutional sector and sub-sector. In each of these balances, stocks and

Table 5 Aggregated balance of non-financial assets, 2008, Czech Republic (CZK, billions)

Code	Item	Total economy S.1	Non-fin. corp. S.11	Financial corp. S.12	General govern. S.13	House-holds S.14	NPISH S.15
IV. 1	**Opening balance sheet**						
AN	**Non-financial assets**	**16 062.2**	**7 666.0**	**204.4**	**4 637.9**	**3 459.4**	**94.5**
AN.11	Fixed assets	13 151.6	5 902.0	171.6	4 074.2	2 919.4	84.4
AN.12	Inventories	1 852.6	1 355.1	9.3	242.5	244.0	1.7
AN.13	Valuables	57.9	1.8	0.5	2.3	53.2	0.1
AN.21	Tangible non-produced assets	901.8	324.2	8.6	317.9	242.9	8.3
AN.22	Intangible non-produced assets	98.3	83.0	14.4	1.0	0.0	0.0
III. 1.2	**Acquisition of non-financial assets account**						
AN	**Non-financial assets**	**286.3**	**189.4**	**2.3**	**–7.6**	**99.9**	**2.3**
AN.11	Fixed assets	242.0	121.1	–0.3	30.1	89.0	2.2
of it:	*Acquisitions*	*881.1*	*497.5*	*16.1*	*182.5*	*180.2*	*4.7*
	Consumptions	*–639.0*	*–376.4*	*–16.4*	*–152.5*	*–91.3*	*–2.6*
AN.12	Inventories	47.0	40.3	2.1	–0.9	5.5	0.0
AN.13	Valuables	3.5	0.1	0.0	0.1	3.3	0.0
AN.21	Tangible non-produced assets	2.1	–2.4	0.3	2.3	1.8	0.1
AN.22	Intangible non-produced assets	–8.3	30.3	0.2	–39.2	0.4	0.0
III. 3.1	**Other changes in volume of assets account**						
AN	**Non-financial assets**	**–43.4**	**–46.5**	**–1.7**	**–0.4**	**6.4**	**–1.2**
AN.11	Fixed assets	–9.5	–4.7	0.1	–3.1	–1.6	–0.2
AN.12	Inventories	32.2	25.7	–0.2	0.5	6.2	0.0
AN.13	Valuables	0.0	0.0	0.0	0.0	0.0	0.0
AN.21	Tangible non-produced assets	–73.3	–36.2	–0.8	–37.5	2.3	–1.0
AN.22	Intangible non-produced assets	7.2	–31.3	–0.9	39.7	–0.4	0.0
III. 3.2	**Revaluation account**						
AN	**Non-financial assets**	**363.9**	**58.5**	**7.4**	**164.8**	**129.0**	**4.1**
AN.11	Fixed assets	430.5	134.8	5.2	167.3	120.0	3.1
AN.12	Inventories	–209.0	–127.0	0.0	–43.3	–38.4	–0.3
AN.13	Valuables	0.0	0.0	0.0	0.0	0.0	0.0
AN.21	Tangible non-produced assets	136.0	45.5	1.3	40.6	47.4	1.2
AN.22	Intangible non-produced assets	6.3	5.2	0.9	0.2	0.0	0.0
IV. 3	**Closing balance sheet**						
AN	**Non-financial assets**	**16 668.9**	**7 867.4**	**212.4**	**4 794.8**	**3 694.8**	**99.6**
AN.11	Fixed assets	13 814.7	6 153.3	176.7	4 268.6	3 126.7	89.4
AN.12	Inventories	1 722.7	1 294.0	11.2	198.9	217.3	1.4
AN.13	Valuables	61.4	1.8	0.5	2.4	56.5	0.1
AN.21	Tangible non-produced assets	966.6	331.1	9.4	323.3	294.3	8.6
AN.22	Intangible non-produced assets	103.5	87.2	14.7	1.7	0.0	0.0

Source: Czech Statistical Office, own calculation

changes in stocks are recorded by individual group of assets for each of 128 industries by NACE, Rev.1 classification.[5] The aggregated data of these balances are always identical with corresponding items in corresponding institutional sectors in core sector accounts.

2.1 Balance of fixed assets

The balance of fixed assets is compiled for each sector or sub-sector. In the balance, stocks and flows of 11 groups of fixed assets in the breakdown by 128 industries are recognised. Part of this balance for sub-sector of national non-financial corporations is shown in the Table 6. The balance is compiled using a combination of data from statistical surveys and from model calculation. The surveyed data are used for acquisition and other changes in volume of assets; the model calculation is used for stocks and consumption of fixed capital. Figures on stocks and also consumption are corrected within the model by price indexes by the type of fixed assets.

For the calculation of stocks and consumption of fixed capital, PIM method with specific parameters for each type of fixed assets is used. Only one exception is dwellings, we used a quantitative method for them. PIM method is applied on each sector and each type of fixed assets. So long time series of acquisitions and price indices had to be developed for each of them. The model also works with estimated lifetimes. Lognormal distribution function is used for all types of assets and all sectors [3, 5 and 6].

The most important parameter, the average lifetime, was estimated according to the results of the survey on the age of retired assets. The survey was conducted during five years in the period from 1998 to 2003 and we recorded about 200 000 retirements. The derived average lifetimes and the parameters for distribution function have been used until now. These main parameters of a method by groups of fixed assets are shown in the Table 7.

One of the most important advantages of the application of PIM has been the introduction of order to the entire system of balances of fixed assets. This method is very demanding in terms of quality of input data and their updating. Model access cannot reflect such significant changes in the Czech economy such as the massive privatisation. These changes significantly affected industrial and sector structure of the property. That is why there is a necessity to collect additional information. For example, previously used average lifetimes are already obsolete, particularly with regard to rapid modernisation of recent years. However, the weakest point of our present application of PIM is the acquisition and disposal of existing fixed assets. During last decade the acquisition of existing fixed assets represents in average for the total economy more than 25 % of total acquisition. The acquisition and disposal of existing fixed assets for the whole economy are nearly in balance, but PIM method is applied on individual industries in individual institutional sectors where differences between the acquisition and disposal of existing fixed assets can be very significant. Theoretically, the correct solution is to include the average age of these acquired / disposed assets to the model. However, it is very difficult to realize.

Similarly, also "other changes in volume of assets" make weak the smooth application of the PIM, in particular large catastrophic losses. However, for these events we make corrections based on estimates produced by experts and insurance companies, using mostly quantitative method.

2.2 Balance of inventories

Balances of inventory, similarly like balances of fixed assets, are compiled for each institutional sector and broken down by four types of stocks and by 128 industries. However, the estimate of stocks and flows

[5] The Czech national accounts are now under the main revision in connection with the transition to NACE Rev. 2). Within this revision, the method of calculating stocks and consumption of fixed capital for dwellings will also be changed (PIM method will be applied).

Table 6 Balance of fixed capital, 2008, Czech Republic (CZK, billions)

Code	Item	Total economy	Agriculture 01	Land transport 60	Real estate service 70
III. 1.2	**Acquisition of non-financial assets account**				
P.51	**Gross fixed capital formation**	**883.2**	**19.6**	**57.1**	**170.8**
of it:	AN.1111 Dwellings	131.2	0.1	0.4	126.8
	AN.11121 Non-residential buildings	212.8	4.6	8.4	26.8
	AN.11122 Other structures	107.9	0.1	0.0	2.1
	AN.11131 Transport equipment	134.7	1.4	34.5	8.9
K.1	**Consumption of fixed capital (–)**	**–639.0**	**–15.6**	**–34.0**	**–88.3**
of it:	AN.1111 Dwellings	–76.2	–0.5	–0.2	–71.1
	AN.11121 Non-residential buildings	–150.9	–6.9	–4.1	–8.1
	AN.11122 Other structures	–81.8	0.0	–5.3	0.0
	AN.11131 Transport equipment	–85.8	–2.0	–19.7	–3.5
III. 3.1	**Other changes in volume of assets account**				
K.3-K.12	**Other changes in volume, total**	**–9.4**	**–3.8**	**–0.2**	**–1.4**
of it:	AN.1111 Dwellings	0.2	0.0	0.0	–1.1
	AN.11121 Non-residential buildings	5.8	0.1	0.0	1.8
	AN.11122 Other structures	–7.3	–0.1	0.0	–2.1
	AN.11131 Transport equipment	–2.4	–0.2	–0.2	0.0
III. 3.2	**Revaluation account**				
K.11	**Nominal holding gains/losses**	**430.5**	**3.9**	**16.2**	**153.5**
of it:	AN.1111 Dwellings	147.9	1.0	0.4	136.2
	AN.11121 Non-residential buildings	249.2	4.4	11.0	21.5
	AN.11122 Other structures	79.2	0.0	2.3	0.0
	AN.11131 Transport equipment	–19.6	–0.9	3.2	–1.6
IV. 1	**Opening balance sheet**				
AN.11	**Fixed assets**	**13 151.6**	**204.9**	**490.8**	**3 600.3**
of it:	AN.1111 Dwellings	3 287.2	23.3	8.0	3 026.5
	AN.11121 Non-residential buildings	5 934.5	103.6	262.5	512.3
	AN.11122 Other structures	1 746.3	0.0	50.5	0.0
	AN.11131 Transport equipment	561.6	17.8	135.9	25.0
IV. 2	**Changes in balance sheet**				
AN.11	**Fixed assets**	**663.1**	**4.0**	**39.1**	**233.0**
of it:	AN.1111 Dwellings	203.1	0.7	0.6	190.8
	AN.11121 Non-residential buildings	317.0	2.2	15.3	42.0
	AN.11122 Other structures	97.8	0.0	-3.0	0.0
	AN.11131 Transport equipment	26.9	-1.7	17.7	3.8
IV. 3	**Closing balance sheet**				
AN.11	**Fixed assets**	**13 814.7**	**208.9**	**529.8**	**3 833.3**
of it:	AN.1111 Dwellings	3 490.3	24.0	8.6	3 217.3
	AN.11121 Non-residential buildings	6 251.5	105.8	277.8	554.4
	AN.11122 Other structures	1 844.1	0.0	47.4	0.0
	AN.11131 Transport equipment	588.4	16.1	153.7	28.8

Source: Czech Statistical Office, own calculation

Table 7 Lifetimes and time series of GFCF by group of fixed assets, Czech Republic

Group of assets			Non-fin. corporations S.11	Financial corporations S.12	General government S.13	Households and NPISH S.14+S.15
Dwellings	Block of flats	Lts	15	15	15	15
		Asl	80	80	80	80
	Family house	Lts	15	15	15	15
		Asl	90	90	90	90
Other buildings and structures	Non-residential buildings	Lts	35	35	50	35
		Asl	40–90 (depends on industry)	40–90 (depends on industry)	40–90 (depends on industry)	40–90 (depends on industry)
	Dams	Lts	50		50	
		Asl	100		50	
	Roads	Lts			60	
		Asl			50	
	Railways	Lts			73	
		Asl			30	
	Ducts and sewerage	Lts			50	
		Asl			80	
	Water treatment plants	Lts			50	
		Asl			30	
	Other structures	Lts	35			
		Asl	30–50			
Machinery and equipment	Transport equipment	Lts	50	50	50	50
		Asl	4.5–21	4.5–21	4.5–21	4.5–21
	Other machinery and equipment	Lts	50	50	50	50
		Asl	7.5–21.5	7.5–21.5	7.5–21.5	7.5–21.5
Cultivated assets	Vineyards etc.	Lts	15	15	15	15
		Asl	11	11	11	11
	Livestock	Lts	15	15	15	15
		Asl	4	4	4	4
Intangible fixed assets	Software	Lts	15–40	15–40	15–40	15–40
		Asl	4.5	4.5	4.5	4.5
	Originals	Lts	15–40	15–40	15–40	15–40
		Asl	7	7	7	7
	Mineral exploration	Lts	15–40	15–40	15–40	15–40
		Asl	10	10	10	10

Lts …the length of time series (number of years), Asl …the average service lives (years).
Source: Czech Statistical Office, own calculation

use the opposite approach. While for fixed capital the acquisition is surveyed and stocks are counted, for inventories the stocks are surveyed and net acquisition is counted. Balance of inventories for non-financial corporations sector serves an example (see the Table 8).

Opening and closing stocks (or change in stocks) and other changes in volume (e.g. extraordinary damage) are received from statistical surveys or from financial statements. Applying turnover ratio and price indexes on stocks by industry and four types of inventories holding gains / losses are calculated and value

Table 8 Balance of inventories, 2008, Czech Republic (CZK, billions)

Code	Item	Non-fin. Corporations S.11	Forestry 02	Wholesale trade 51	Real estate services 70
III. 1.2	**Acquisition of non-financial assets account**				
P.52	**Changes in inventories, total**	**40.3**	**2.0**	**3.7**	**3.2**
P.521	Changes in inventories of materials and supplies	2.1	0.0	0.4	–0.3
P.522	Changes of work in progress	10.5	2.0	0.3	2.0
P.523	Changes in inventories of finished goods	9.3	0.0	0.3	0.1
P.524	Changes of inventories of goods for resale	18.4	0.0	2.6	1.4
III. 3.1	**Other changes in volume of assets account**				
AN.12	**Inventories, total**	**25.7**	**0.4**	**–5.4**	**0.9**
AN.121	Materials and supplies	5.3	0.0	–0.6	–0.7
AN.122	Work in progress	8.5	0.4	–0.5	–2.3
AN.123	Finished goods	2.1	0.1	–0.3	0.8
AN.124	Goods for resale	9.8	0.0	–4.1	3.1
III. 3.2	**Revaluation account**				
AN.12	**Inventories, total**	**–127.0**	**–106.3**	**–9.3**	**0.0**
AN.121	Materials and supplies	–1.8	0.0	–0.2	0.0
AN.122	Work in progress	–106.7	–106.2	–0.5	0.4
AN.123	Finished goods	–2.5	–0.1	–0.2	–0.5
AN.124	Goods for resale	–16.0	0.0	–8.4	0.2
IV. 1	**Opening balance sheet**				
AN.12	**Inventories, total**	**1 355.1**	**499.5**	**188.9**	**19.2**
AN.121	Materials and supplies	244.7	0.3	3.8	1.4
AN.122	Work in progress	675.3	498.5	1.9	13.7
AN.123	Finished goods	94.1	0.6	0.9	1.5
AN.124	Goods for resale	341.0	0.1	182.3	2.5
IV. 2	**Changes in balance sheet**				
AN.12	**Inventories, total**	**–61.1**	**–104.0**	**–11.1**	**4.1**
AN.121	Materials and supplies	5.5	0.0	–0.4	–1.0
AN.122	Work in progress	–87.7	–103.8	–0.7	0.1
AN.123	Finished goods	8.9	–0.1	–0.2	0.4
AN.124	Goods for resale	12.2	0.0	–9.8	4.7
IV. 3	**Closing balance sheet**				
AN.12	**Inventories, total**	**1 294.0**	**395.6**	**177.8**	**23.3**
AN.121	Materials and supplies	250.2	0.3	3.4	0.3
AN.122	Work in progress	587.6	394.7	1.2	13.8
AN.123	Finished goods	103.1	0.5	0.7	1.9
AN.124	Goods for resale	353.2	0.1	172.5	7.2

Source: Czech Statistical Office, own calculation

of stocks is corrected. The difference between so adjusted changes in stocks and holding gains / losses and other changes in volume results then in changes in inventories of capital account. These model calculations are used quarterly. Estimated holding gains / losses are used for the adjustment of stocks taken from business accounts but also for the adjustment of output or intermediate consumption (materials).

Specific approaches are used for standing timber and for state's material reserves. In principle, the entire balances are taken from the relevant state administrative body. The method used for pricing of standing timber is now being discussed. Ministry of agriculture uses current market prices for each kind of wood. Present changes in market prices of wood have discovered necessity to use a discounted value of future proceeds for standing timber. It is our plan to eliminate present deformation in holding gains from the work in progress on cultivated assets (see holding gains in forestry, Table 8).

2.3 Balance of valuables

Given small importance of valuables and difficulties with their estimates we focus only on estimate of newly acquired valuables and change in their valuation. We do not expect any other changes in volume, so the closing stocks in balance are calculated as the sum of revaluated opening stocks and current acquisitions less disposals of valuables. For the companies the acquisitions less disposals of valuables is statistically surveyed, for households we made estimate based on two commodities flows — CPA 36.2 (goldsmiths' and jewellery products) and CPA 92.31.1 (art).

2.4 Balance of non-produced assets

The balance of non-produced assets is currently under redevelopment. By the form the current version of the balance of non-produced assets is similar to the structure of other balances of non-financial assets. Stocks and flows of individual types of non-produced assets for each institutional sector are broken down by industry. Compilation and evaluation of the results of this balance have not yet been considered as a priority in the CZSO. Therefore this balance contains only those data, which have been available from the business and general government accounts. The priority was aimed at the process of restitution and privatisation and their recording in capital account. Therefore, the payable and free transactions with non-produced assets (mainly land), have been recorded separately, in particular the land from the General Government sector. Therefore, the schema of the balance has been modified to accommodate these needs. Now, when bigger demand for the non-produced assets data emerges, we have already problems how to describe properly all flows and stocks by each category of non-produced assets.

Based on our past experience, we plan to focus more on evaluation of stocks, changes in the value and on other changes in the volume of assets (e.g. changes in land use, economic appearance or disappearance of intangible non-produced assets). At the same time we expect to use new data source for the valuation and changes in valuation of land, data from the State Cadaster and price maps. Whereas, stock of assets in business accounts is valued in historical prices of acquisition, the business accounts data will be used only for transactions, (purchases and sales) which are usually given in standard market prices, and partially also for other flows (damages).

New scheme of balances of non-produced assets will be shaped by the requirement that instead of one very large internally inconsistent balance (broken down for each institutional sector by industry and covering all types of non-produced assets) we suppose to build three, internally homogeneous balances. The industrial breakdown is under discussion. The separate balances will be compiled for land, subsoil assets and intangible non-produced assets. The exact content will be determined according to the new classification of non-produced assets, respectively, according to the ESA 2010. All accounts in these balances will be of the same general structure, i.e. broken by the same aggregation of that type of assets to clearly show all flows and stocks in each category of non-produced asset, as it is in other balances of non-financial assets. As a new schema of balances of non-produced assets the balance of land is shown in the Table 9.

Table 9 Balance of land, 2008, Czech Republic (CZK, billions)

Code	Item	Total economy S.1	Non-fin. corp. S.11	Financial corp. S.12	General govern. S.13	House-holds S.14	NPISH S.15
III. 1.2	**Acquisition of non-financial assets account**						
K.21	**Acquisitions less disposals of land, total**	**0.0**	**–2.8**	**0.3**	**2.3**	**0.2**	**0.1**
K.211	Acquisitions of land	68.7	12.4	0.9	7.5	47.7	0.2
K.212	Disposals of land (–)	–68.7	–15.2	–0.6	–5.2	–47.5	–0.2
III. 3.1	**Other changes in volume of assets account**						
AN.211	**Land, total**	**64.6**	**9.5**	**0.5**	**3.1**	**51.3**	**0.2**
AN.2111	Land underlying buildings and structures	48.2	7.6	0.5	1.0	38.9	0.2
AN.2112	Land under cultivation	14.5	1.3	0.0	0.9	12.3	0.1
AN.2113	Recreational land and associated surface water	0.0	0.0	0.0	0.0	0.0	0.0
AN.2119	Other land and associated surface water	1.8	0.6	0.0	1.2	0.0	0.0
III. 3.2	**Revaluation account**						
AN.211	**Land, total**	**128.5**	**45.3**	**1.3**	**44.8**	**35.9**	**1.2**
AN.2111	Land underlying buildings and structures	81.8	29.5	1.3	26.3	23.6	1.0
AN.2112	Land under cultivation	43.5	14.1	0.0	16.9	12.3	0.2
AN.2113	Recreational land and associated surface water	0.0	0.0	0.0	0.0	0.0	0.0
AN.2119	Other land and associated surface water	3.3	1.7	0.0	1.6	0.0	0.0
IV. 1	**Opening balance sheet**						
AN.2111	**Land, total**	**898.8**	**321.2**	**8.6**	**317.9**	**242.9**	**8.3**
AN.2112	Land underlying buildings and structures	545.0	196.9	8.4	175.4	157.5	6.8
AN.2113	Land under cultivation	302.2	97.8	0.0	117.5	85.3	1.5
AN.2119	Recreational land and associated surface water	0.0	0.0	0.0	0.0	0.0	0.0
AN.2119	Other land and associated surface water	51.7	26.4	0.2	25.0	0.0	0.0
IV. 2	**Changes in balance sheet**						
AN.211	**Land, total**	**193.1**	**52.0**	**2.0**	**50.2**	**87.3**	**1.6**
AN.2111	Land underlying buildings and structures	130.0	34.3	2.0	29.6	62.7	1.3
AN.2112	Land under cultivation	58.1	15.4	0.0	17.8	24.6	0.3
AN.2113	Recreational land and associated surface water	0.0	0.0	0.0	0.0	0.0	0.0
AN.2119	Other land and associated surface water	5.1	2.3	0.0	2.8	0.0	0.0
IV. 3	**Closing balance sheet**						
AN.211	**Land, total**	**1 091.9**	**373.2**	**10.6**	**368.1**	**330.2**	**9.8**
AN.2111	Land underlying buildings and structures	674.9	231.2	10.4	205.0	220.2	8.1
AN.2112	Land under cultivation	360.2	113.2	0.0	135.3	110.0	1.7
AN.2113	Recreational land and associated surface water	0.0	0.0	0.0	0.0	0.0	0.0
AN.2119	Other land and associated surface water	56.8	28.7	0.2	27.8	0.0	0.0

Source: Czech Statistical Office, own calculation

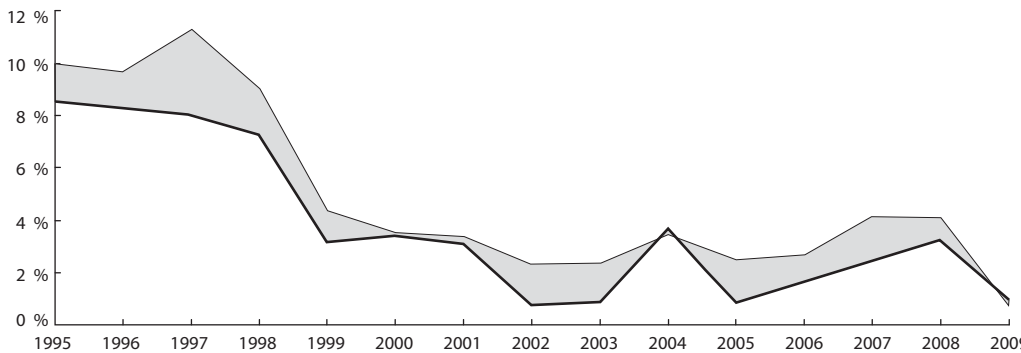
3 THE BENEFITS OF BALANCES OF NON-FINANCIAL ASSETS FOR THE SYSTEM OF NATIONAL ACCOUNTS

The balances of non-financial assets have been created within the system of national accounts of the Czech Republic becoming its integral part. This harmonised system provides great analytical and statistical advantages.

The analytical benefit of the balances of non-financial assets such as harmonic part of the system of national accounts subsists in the ability to show, together with balances of financial assets, the stock and changes in stocks of national wealth / net worth structured by institutional sector, by industry and by type of assets.

For example, the Figure 2 shows the development of the neutral and real holding gains from fixed assets in the sector of households. The shaded area represents the relative level of appreciation of the fixed assets owned by households (particularly dwellings) compared to price development of the final national uses. It should be considered that during last decade 60 % of value of existing dwellings in the Czech Republic has gone through the real estate market and that price surplus realized through the real estate market became an important additional source of financing of household and government current expenditures.

Figure 2 Relative level of appreciation of the fixed assets owned by households



Source: Czech Statistical Office (www.czso.cz), own calculation

The advantage of complete national accounts system subsists in providing comprehensive analytical views. If we assess the impact of price development of real estate separately we may come to erroneous conclusions. The example of the impact of real gains from the non-financial assets (see the Table 10) shows completely reverse impacts of price development on the different components of the net worth in different institutional sectors. Simply, the price impact on non-financial assets cannot be assessed separately from the impact of the financial assets and liabilities (Rybáček, 2010).

Statistical benefit subsists in the fact that it allows comprehensive access and reduces difficulties in those areas that might make the core system of sector accounts more complicated, and enlarges in balances of non-financial assets those areas that are not essential for the core system of sector accounts. The application of the PIM method for calculation of stocks and consumption of fixed capital can serve an example. Similarly, also calculation of holding gains on inventories is based primarily on industry x commodity matrices of stocks. Statistical discrepancies between the closing stocks and corresponding opening stocks are also computed and analysed by individual industry. Generally, analyses in balances of non-financial assets structured by industry provide more accurate data for the core system of sector accounts, and vice versa, the overview from sector accounts helps to make analyses of plausibility in the balances of non-financial assets. For example, calculations of real holding gains

Table 10 Appreciation of net worth due to real holding gains/losses (% of net worth)

Sector / assets	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
S.11 — Non-financial corporations															
Total	**12.4**	**3.3**	**8.2**	**6.8**	**5.1**	**2.6**	**0.0**	**–3.3**	**–0.6**	**–3.5**	**–2.7**	**0.6**	**–1.1**	**2.1**	**–4.1**
on non-financial assets	–1.9	–4.3	1.5	–1.0	0.1	–0.6	–1.3	–1.4	–0.2	–1.7	1.2	1.7	1.3	–4.1	–2.5
on financial assets	–4.3	–8.3	–8.2	–8.4	–4.0	–4.0	–3.0	–2.1	–1.0	–3.3	–0.5	–1.6	–3.2	–4.8	–1.8
on liabilities	18.5	15.9	14.9	16.2	8.9	7.2	4.3	0.2	0.6	1.5	–3.4	0.4	0.8	11.0	0.2
S.12 — Financial corporations															
Total	**–3.5**	**–4.9**	**–46.8**	**–4.0**	**–27.5**	**–13.7**	**–17.4**	**6.0**	**–8.8**	**–20.7**	**16.7**	**–58.2**	**–137.7**	**40.8**	**–51.7**
on non-financial assets	–0.5	–0.9	1.1	–0.2	–0.1	0.4	–0.1	–1.0	–0.4	–1.0	0.3	0.9	2.1	0.3	–0.7
on financial assets	–123.1	–132.9	–315.5	–115.7	–67.5	–90.4	–80.0	–22.5	–80.9	–114.9	6.6	–172.9	–267.8	–37.3	–34.7
on liabilities	120.1	128.8	267.6	111.9	40.1	76.3	62.7	29.5	72.5	95.2	9.9	113.8	128.0	77.8	–16.3
S.13 — General government															
Total	**–2.7**	**–1.6**	**–1.8**	**–1.9**	**1.3**	**0.5**	**0.4**	**0.2**	**1.1**	**2.7**	**5.8**	**3.6**	**4.8**	**–3.7**	**0.5**
on non-financial assets	0.3	0.8	0.3	0.7	1.0	0.5	0.3	1.1	0.9	–0.2	1.9	1.7	1.8	0.3	–0.3
on financial assets	–3.7	–3.1	–2.7	–3.2	0.1	–0.5	–0.3	–1.1	0.0	1.9	3.5	1.4	2.3	–4.7	0.4
on liabilities	0.7	0.7	0.6	0.6	0.2	0.4	0.5	0.2	0.2	0.9	0.4	0.5	0.6	0.7	0.3
S.14 — Households															
Total	**–4.9**	**–2.6**	**–1.0**	**–1.8**	**–0.8**	**–1.1**	**–1.0**	**0.4**	**0.6**	**–1.4**	**1.0**	**0.6**	**0.6**	**–1.4**	**0.2**
on non-financial assets	0.7	0.4	1.5	0.9	0.5	0.2	0.0	0.7	1.0	–0.2	1.2	1.1	1.1	0.3	–0.4
on financial assets	–6.3	–3.6	–3.3	–3.3	–1.7	–1.6	–1.4	–0.4	–0.6	–1.9	–0.5	–0.9	–1.2	–2.3	0.3
on liabilities	0.6	0.6	0.7	0.7	0.4	0.4	0.4	0.1	0.1	0.7	0.2	0.4	0.7	0.7	0.3

Source: Czech Statistical Office, own calculation

are beneficial not only analytically, but also for the improvement of our work in the field of account of other changes in volume of assets or they call for another verification of the statistical data and possible correction of the few reliable data.

The industrial breakdown of the balances of non-financial assets helps to secure an internal consistency of the entire system of national accounts — via the aggregated items by institutional sectors there is a direct link to "core" sector accounts and via industrial structure there is a direct link to the system of supply and use tables. Industrial breakdown of non-financial assets is therefore important not only from the aspect of analysis but also for internal consistency of the entire system of national accounts.

The CZSO published an analysis of the impact of holding gains, which had a retroactive effect on the improvement of the quality of data provided. At present, we focus mainly on valuation of dwellings, land and forests. These three types of assets represent more than one-third of the national wealth and in the sector of households almost two-thirds of their net worth. Growing market of these assets, including the growing purchases by non-residents needs now better credibility of summary statistical data both in the core sector accounts and balances of non-financial assets.

4 CONCLUSSIONS — FARTHER DEVELOPMENT OF BALANCES OF NON-FINANCIAL ASSETS

The current main orientation of the economic statistics and analyses on the output brings out a distorted picture of economy. The national wealth as a final result of economic development should be analysed more preferably. It was important lesson from last financial and economic crises. Statistics should concentrate more on the quantification of stocks and trends of national wealth, on more consistent views on

the national wealth / net worth by institutional sectors, by industries and by type of assets breakdown and also on the better evaluation of stocks and changes in assets.

As a reaction on the new emphasis on national wealth the CZSO should farther improve or extend the existing balances of non-financial assets in the nearest period, in particular: (1) to change radically the Balance of non-produced assets, (2) to continue in improvement of a valuation of stock in the Balance of fixed assets, (3) to change the method of valuation of forests in Balance of inventories and (4) to create a new Balance of durables (to analyse the national wealth in the broader concept).

The balance of non-produced assets should be divided into three balances according to type of assets and concentrate efforts on the balance of the land, to ensure the data from the Cadastre and land prices, according to its nature and the location.

In the balance of fixed assets it is necessary to exclude a land from the value of the buildings (in particular for dwelling), to apply the method of PIM to the dwellings and to improve existing methods of PIM application for other fixed assets (to update the parameters to reflect the impact of the acquisition and sale of the existing fixed assets and to secure data for other changes in volume.

In the Balance of stocks it is necessary to change the method of valuation of forests. Instead of current prices of wood should be used a discounted value of future proceeds.

Durables play an important role in welfare of households. Nevertheless, they are recorded as one-off consumed in National Accounts. So, for analytical reason it should be very useful to record and cumulate them in Balance of durables, including PIM method on each group of these durables.

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