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Unpaid housework from the perspective of economic wellbeing and national accounts in Hungary

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Overview

- 1. General features of the system of national accounts**
- 2. Importance and types of satellite accounts**
- 3. Estimation on GVA and output of unpaid household work – elements of input method**
- 4. Extended accounts, the impact of unpaid household work on main aggregates including GDP**

General features of national accounts(1)

- ✓ an internationally compatible accounting framework for a systematic and detailed description of a total economy
- ✓ compilation of the sequence of accounts
- ✓ measure value added created in one period (GDP)
- ✓ complex, complete and consistent interlinked system
- ✓ internationally compatible
- ✓ operational, meaning that they can be measured in practice
- ✓ different from most administrative concepts
- ✓ well-established and fixed over a long period
- ✓ focused on describing the economic process in monetary and readily observable terms

General features of national accounts(2)

Institutional units are grouped into sectors on the basis of their **principal functions, behaviour and objectives**

Institutional sectors: S.1 National economy + S.2 Rest of the World

S.11 Non-financial corporations

S.12 Financial corporations

S.13 General Government

S.14 Households

S.15 Non-profit institutions (NPISH)

The system is built around a sequence of interconnected accounts. The full sequence of accounts for the institutional units and sectors is composed of:

- **current accounts** which are concerned with the production, generation, distribution and redistribution of income and the use of such income in the form of final consumption;
- **accumulation accounts** which cover changes in assets and liabilities and changes in net worth ;
- **balance sheets** which present stocks of assets and liabilities and net worth

General features of national accounts(3)

S.14 Households

In NA: small groups of persons who share the same living accommodation, who pool their income and wealth and who consume certain types of goods and services, mainly housing and food, collectively.

Household sector includes:

- ✓ individuals or groups of individuals whose principal function is consumption
- ✓ persons living permanently in institutions:
 - like members of religious orders living in monasteries, long-term patients in hospitals, prisoners serving long sentences, old persons living permanently in retirement homes
- ✓ produce goods and non-financial services for own final use exclusively
 - services of owner-occupied dwellings and
 - domestic services produced by paid employees

In Household Satellite Accounts **only private (resident) households are included**



Why do we need to extend boundary of NA

- ✓ Traditional macro-economic indicators do not provide a robust measure of the economy
- ✓ Central framework and its major aggregates do not describe changes in economic welfare
- ✓ Measuring unpaid housework helps to uncover hidden aspects of the economy – own-use production increases the well-being of households
- ✓ Increase of market-based services results in overestimating of the growth (shift between two sectors)
- ✓ Helps decision-taking and policy-making

„If a man marries his housekeeper or cook, the national dividend is diminished” Pigou (1920)

Satellite Accounts

All **basic concepts** and **classifications** of the central framework of the National accounts shall be retained

Extremely useful for **research purposes**, by allowing more focus on **analysis** on particular sectors of the economy

Two standard types

First type

- does not extend the SNA production boundary

- more detail on a specific sector or industry

- tourism satellite account -more detailed analysis on the demand and supply of tourism-related products and industries

Second type

- extends the boundaries of production, consumption, or capital formation beyond the conventional SNA definitions

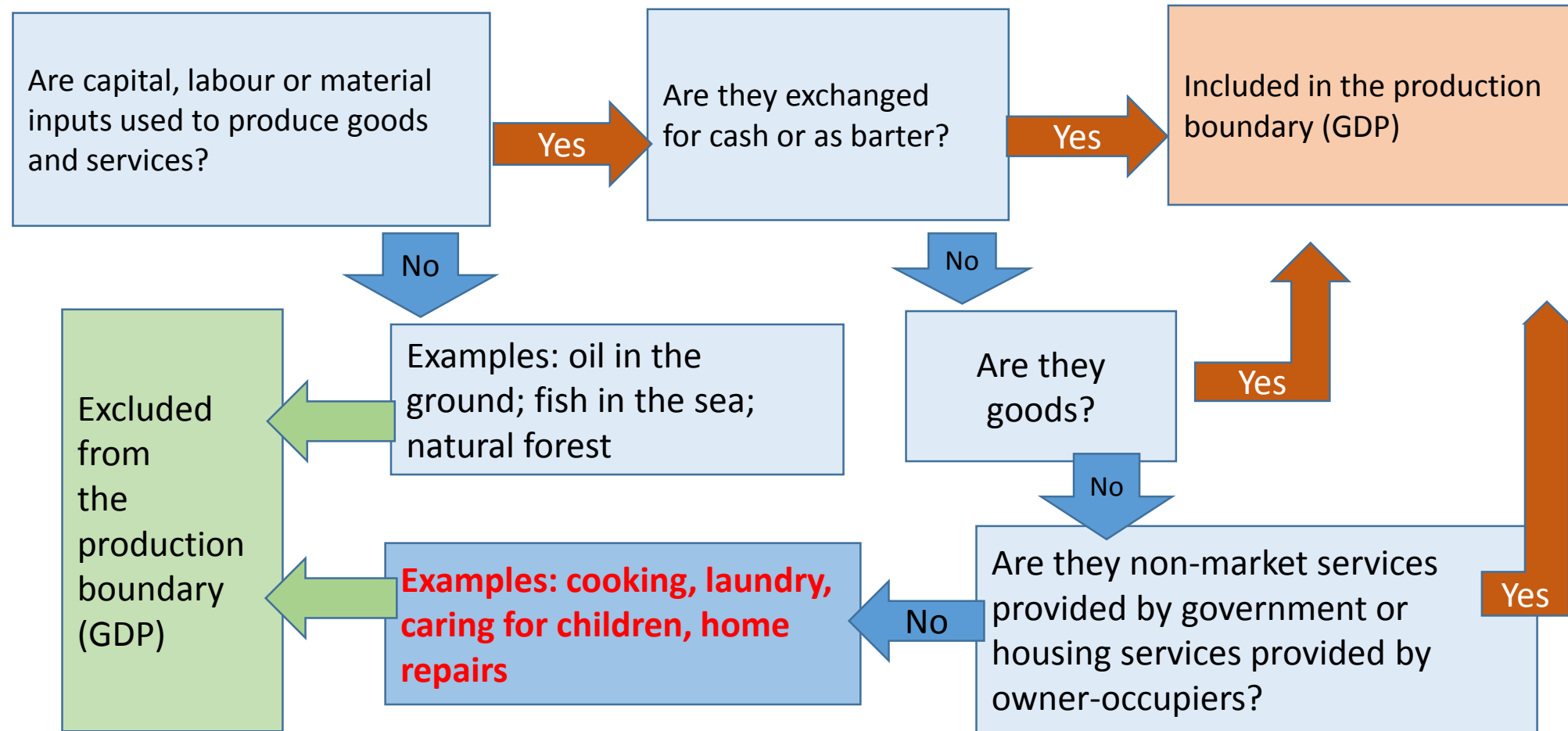
The types of satellite accounts

For some data needs, separate satellite accounts should be drawn up. (1.40)

Examples are:

- (a) social accounting matrices (SAMs);
- (b) the role of tourism in the national economy; **TOURISM ACCOUNT**
- (c) the analysis of the costs and financing of health care; **HEALTH ACCOUNT**
- (d) R &D recognised as capital formation of intellectual property;
- (e) recognition of human capital as assets in the national economy;
- (f) the analysis of the income and expenditure of households on the basis of micro-oriented concepts of income and expenditure; **ICW FRAMEWORK**
- (g) the interaction between the environment and the economy; **ENVIRONMENT**
- (h) production within households; HOUSEHOLD SATELLITE ACCOUNT**
- (i) analysis of changes in welfare;

The production decision tree



Household production in NA

Included in NA

- own-account production of **housing services** by owner-occupiers
- own-account **construction**, including that by households
- production of goods for own final consumption, e.g. of **agricultural products**

Not included in NA

- **domestic and personal services** produced and consumed within the same household, e.g. cleaning, the preparation of meals or the care of sick or elderly people
- **volunteer services** that do not lead to the production of goods, e.g. care-taking and cleaning without payment

Input-based estimation method (sum of the costs)

+ value of work

(= time use x estimated wages per unit of time)

+ other taxes on production

– other subsidies on production

= net value added

+ consumption of fixed capital

= gross value added

+ intermediate consumption

= output

OUTPUT method

OUTPUT

- IC

= GVA

- CFC

- Other net taxes

= Imputed compensation
of labour input

The breakdown of household final consumption expenditure used in NA

- ✓ In NA, **households** are primarily **consumption units**, household final consumption contains all products and services
- ✓ The estimation on consumption items is compiled by **COICOP** categories (Classification of individual consumption by purpose)
- ✓ **Domestic concept** used in NA: the aggregate contains the products and services consumed on the territory of Hungary regardless of the fact that the consumption was carried out by a resident or a non-resident
- ✓ **Resident concept** applied in HHSA

Reclassification of household consumption expenditure into three parts:

- 1) Final consumption expenditure – which gives utility directly
- 2) Intermediate consumption - that serves household production
- 3) Accumulation of fixed assets - that serves household production as well

The remaining household final consumption is extended by the output of households

Reclassification of HHFCE

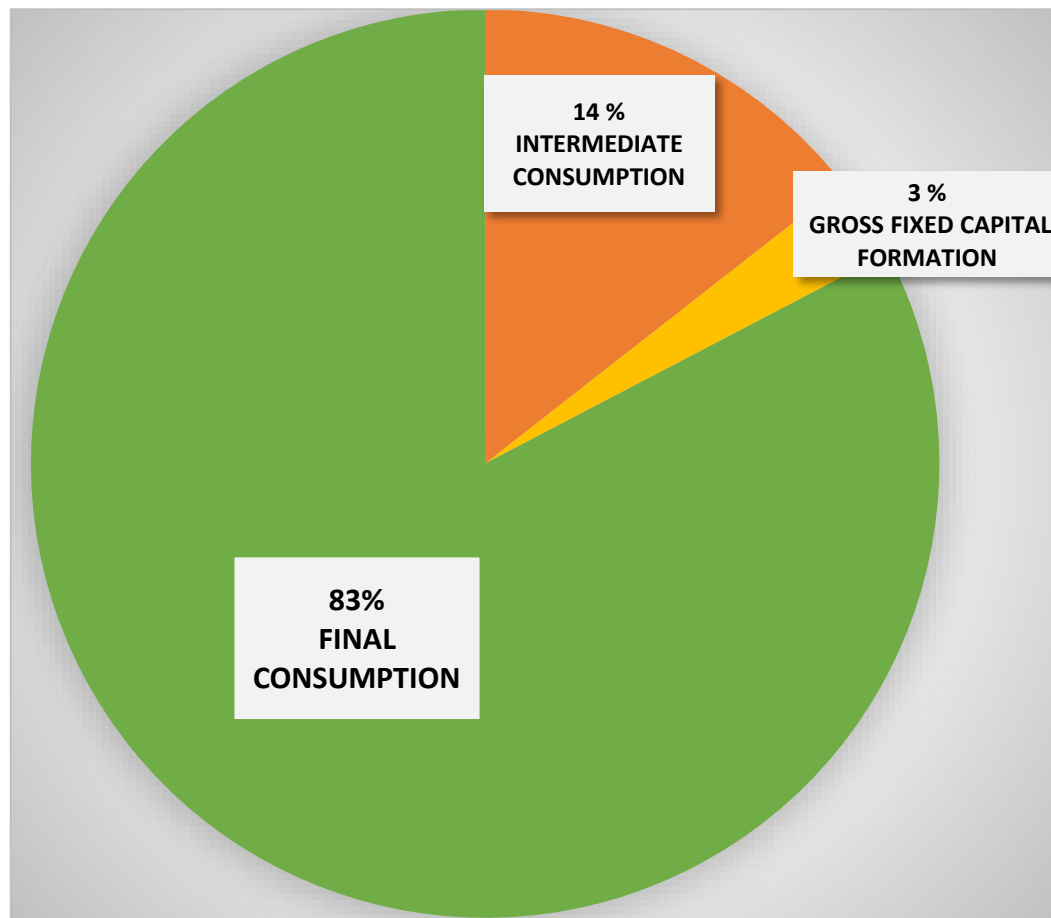
UNECE's Recommendation should be followed:

1. Final consumption expenditure: leisure, eating in a restaurant, entertainment and so on
2. Intermediate consumption: flour and vegetables are inputs of preparing a meal
3. Household durables: vacuum cleaners are reclassified as productive capital in the cleaning of homes, requiring an estimation of depreciation and return on investment

Some goods and services classified in COICOP can be used for final consumption and intermediate consumption as well - assign a quota allotment for the items.

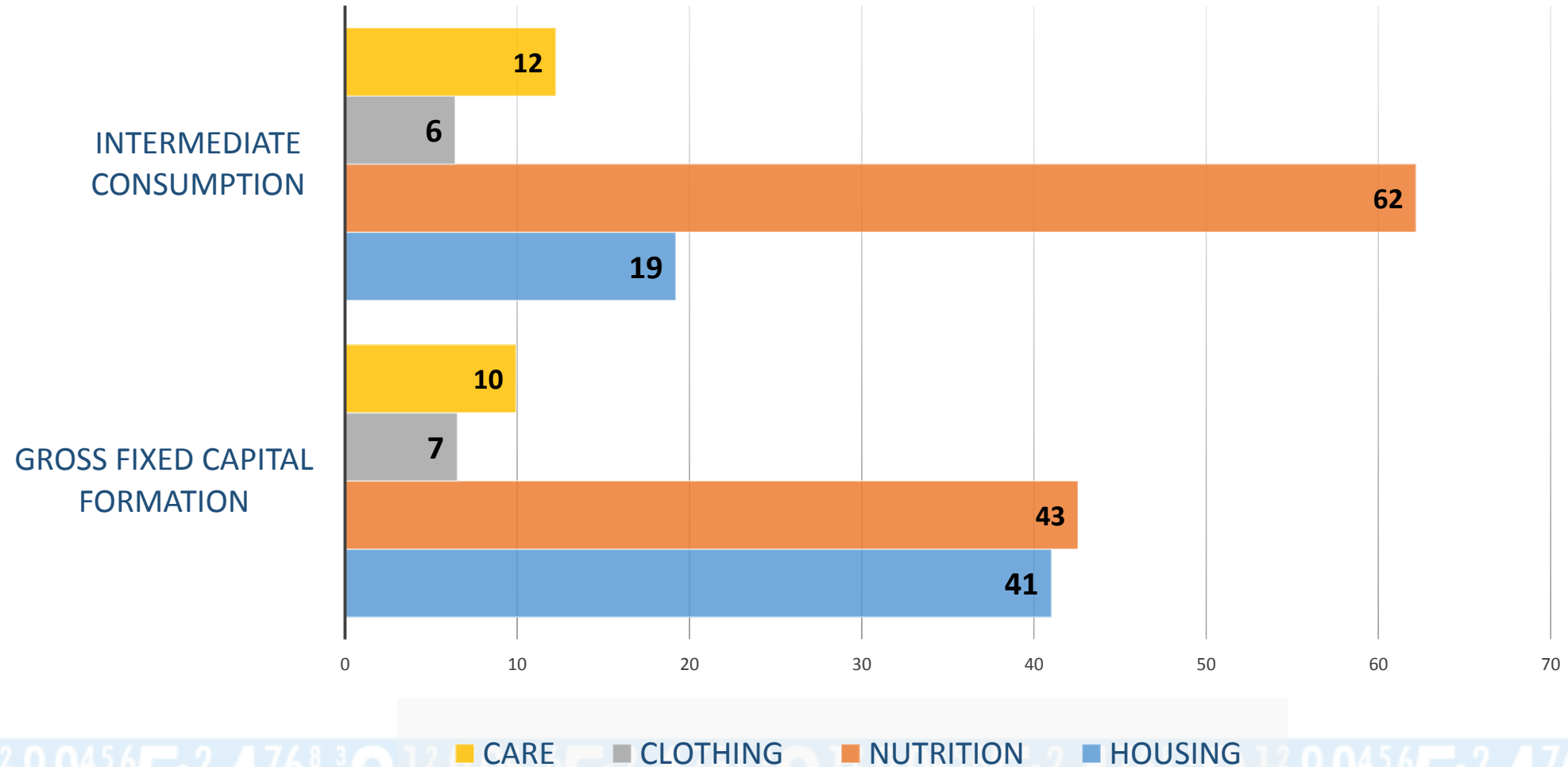
For example: 60% of fruits are used for final consumption and 40% for intermediate consumption

Domestic consumption expenditure of resident households, 2010



1. Final consumption expenditure
11 015 billion HUF
2. Intermediate consumption: for example, laundry detergents or unprocessed raw foodstuffs (its estimated value: 1 924 billion HUF)
3. Gross fixed capital formation assets which serve the household production over a year, like washing machine, refrigerator-freezer (its estimated value: 386 billion HUF)

The distribution of intermediate consumption and gross fixed capital formation by functions, %



Consumption of fixed capital

The depreciation of fixed assets used during household production

Consumption of fixed capital is the decline in value of fixed assets owned, as a result of:

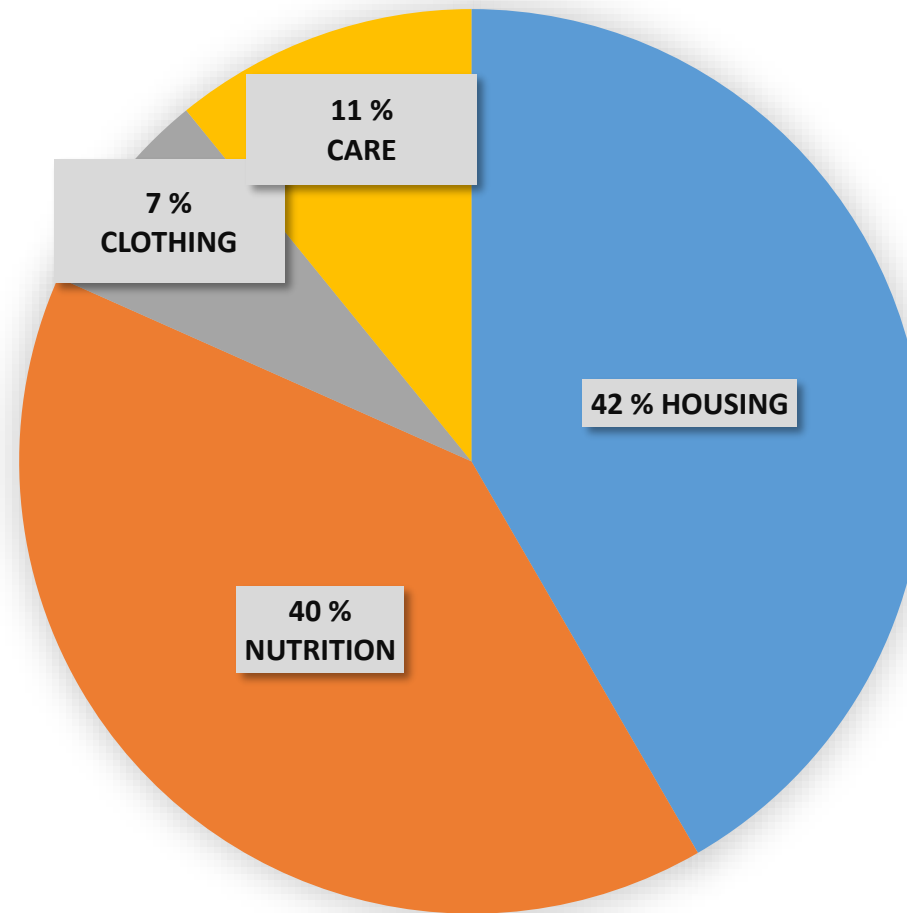
- normal wear and tear
- accidental damage
- and obsolescence

The **perpetual inventory method** (PIM) is applied for the estimation of stock and consumption of fixed assets

Data used by the estimation

- Time series of fixed assets (COICOP) – according to Eurostat's proposal
- HBS provides data for the number, the age and vintages of assets and the service life
- Consumer price index

Consumption of fixed capital (depreciation) by main activity, 2010



Other taxes and subsidies on production

Characteristics:

- Can be estimated from the existing NA figures
- Contain those taxes that enterprises incur as a result of engaging in production, independent of the quantity or value of the goods and services produced or sold.

Taxes on production:

- taxes on vehicles (25%) – related to housing, nutrition and care
- communal tax– related to housing

Subsidies on production: all items related to care function

- child care assistance benefits
- child care allowance
- care allowance for disabled adults or children

Household production - not accounted in NA, 2010, billion HUF

Denomination	Housing	Nutrition	Clothing	Care	Voluntary work	Total
Value of work*	1 525	3 099	341	1 518	14	6 497
Other taxes (+) and subsidies (–) on production	12	2	0	-96	0	-81
Net value added	1 538	3 101	341	1 423	14	6 416
Consumption of fixed capital	175	168	31	46	0	420
Gross value added	1 713	3 269	372	1 468	14	6 836
Intermediate consumption	369	1 196	123	235	0	1 924
Output	2 082	4 465	495	1 704	14	8 759
Capital formation	158	164	25	38	0	386

*Calculated with net wages of special substitutes

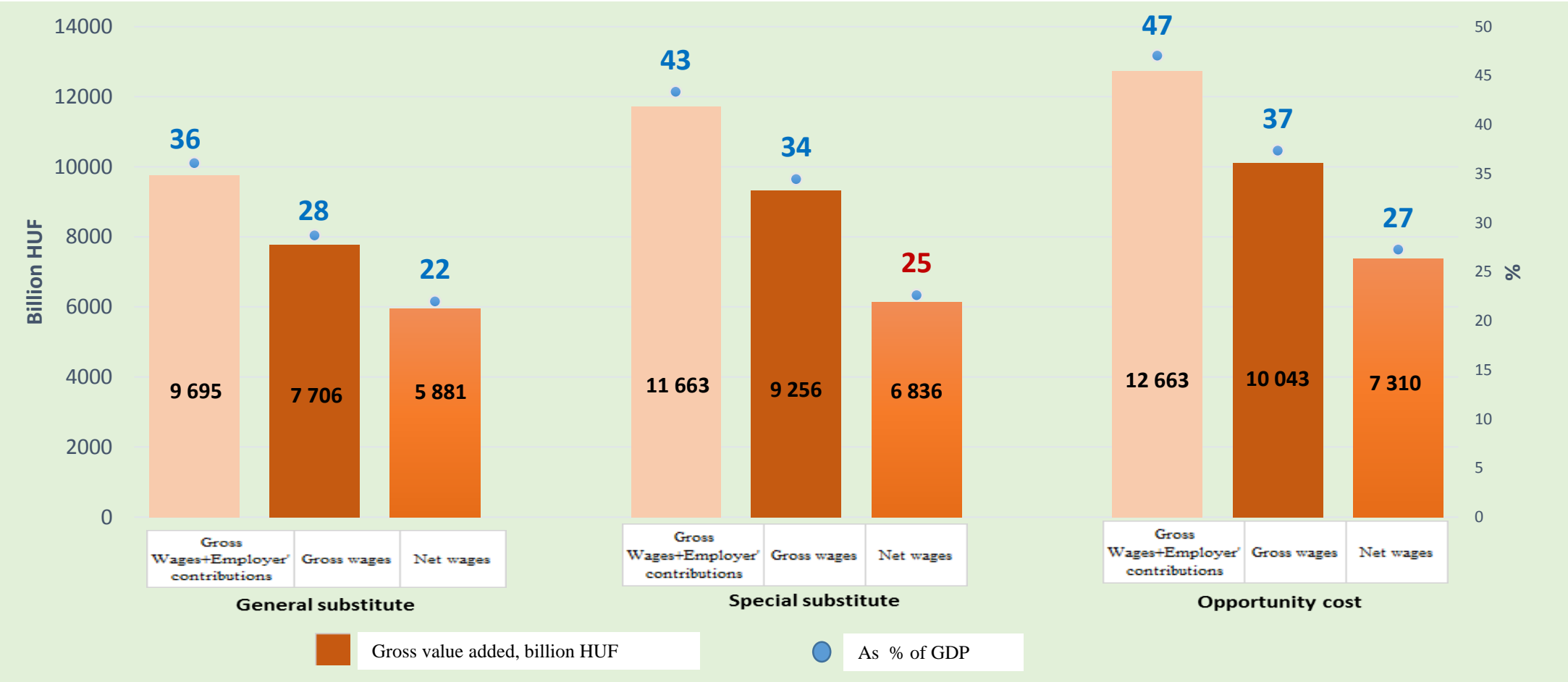
Main indicators of the extended household sector account, 2010

Denomination	Output	Gross value added	Net adjusted disposable income	Actual final individual consumption
Billion HUF				
Production of household sector in NA	5 772	3 913	17 242	17 138
Household production not included in NA*	8 759	6 836	6 416	6 450
Extended household sector account	14 532	10 748	23 658	23 588
Distribution, %				
Production of household sector in NA	100	100	100	100
Household production not included in NA*	152	175	37	38
Extended household sector account	252	275	137	138

*Calculated with net wages of special substitutes

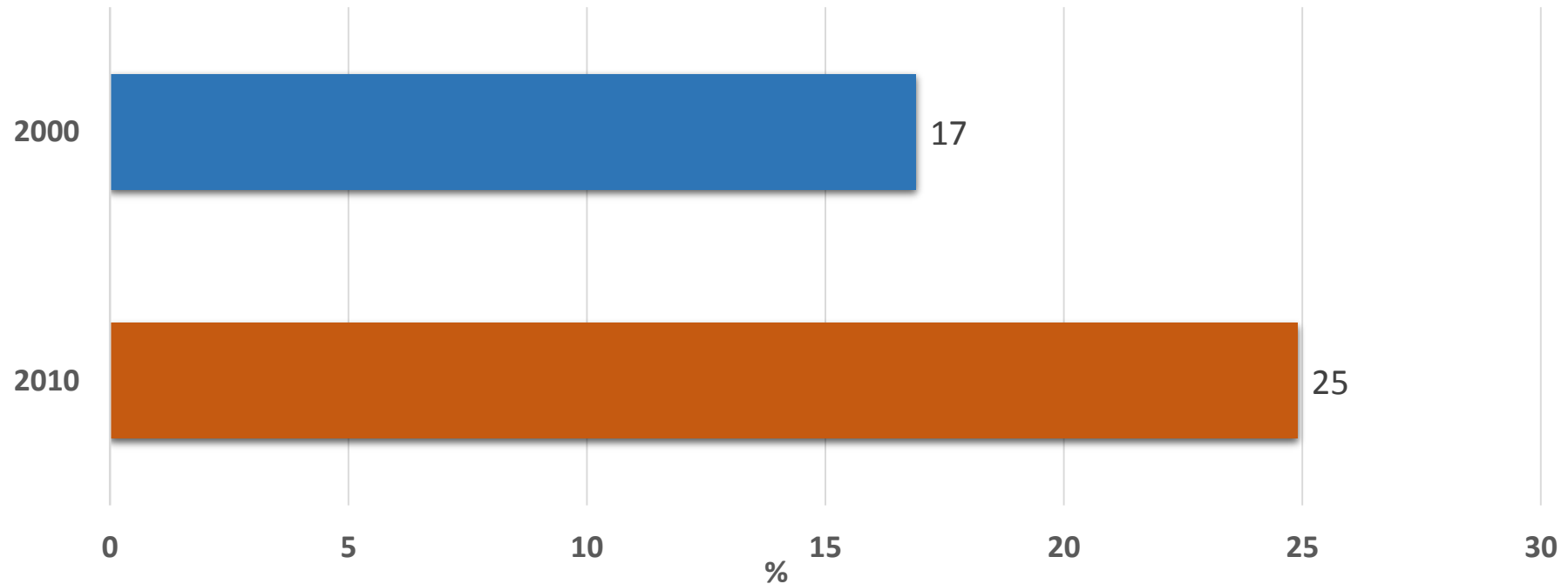


Gross value added – calculated by different methods – of household production not covered by NA and its ratio to GDP, billion HUF



Comparison in time: 2000 – 2010

The gross value added of household production as a percentage of GDP, calculated with the net wages of special substitutes



To ensure comparability the value of depreciation and intermediate consumption has been corrected. Between 2000 and 2010, the contribution to GVA grew by 8 percentage points.

Main conclusions

- ✓ Value of unpaid housework is significant and it has great impact on GDP
- ✓ Inclusion of unpaid housework makes the distribution of household consumption and disposable income more balanced in a country or among countries
contributes to the economic well-being of households

If we took into account the value of unpaid housework when calculating the GDP, a man could marry his housekeeper or cook and the national dividend would not be reduced

Further research areas

Multitasking or simultaneous activities

Valuation of unpaid housework

Measuring productivity -estimation of return on capital

Comparison of input and output method

More frequent time use survey at least every five years

or Light diaries (Finland) every year, special module on the Labour Force Survey (Switzerland)

COICOP should be made suitable for the classification of household work

Measurement of volunteer work