# National Accounts – what are they good for?

**EMOS Course**

**May 2017**

# Structure of the session

- The history of National Accounts and their development
- The compilation of national accounts in Europe
- Economic actors and how they are represented in national accounts
- Production, Expenditure and Income
- Flow accounts and balance sheets
- The link to financial accounts and balance of payments
- Key macroeconomic aggregates such as GDP; their strengths and weaknesses

# History of National Accounts

Early attempts in 17th century

- Petty and King
- Boisguillebert and Vauban

New Deal, Kuznets, Clark, Leontief

Keynes, Stone and Frisch

Marshall Plan and economic reconstruction

# History of national accounts – part II

*UN involvement – international cooperation*

*Successive frameworks, covering*

- **Services and Financial Accounts**
- **Prices and volumes**
- **Quarterly data**

*SNA 2008 now the worldwide standard*

# National accounts in Europe

ESA10 largely consistent with SNA 2008

- **Introduced from Sept 2014**

Legal Regulation >> directly applicable EU

Administrative uses

- **EDP**
- **EU Budget (Fourth Resource)**
- **Structural Funds**

# Compilation in Europe

Compilation and publication by National Statistical Institutes

Exception: National Bank of Belgium

Compulsory transmission of data to Eurostat

>> EU/EA aggregates, publication

Quality checks and validation

# Overall structure of national accounts

- To faithfully represent the trillions of activities in the economy in a period of time: simple structure needed
- Production is the source of value
- Value is distributed to recipients, and then spent or saved
- Financial instruments act as mediums of exchange and stores of wealth

# Key features

- Delimitation of the economy
- Economic Actors
- Nature of transactions
- Aggregate measures (GDP, GNI etc)
- Definition of income (narrow vs Hicks)
- Consistency (Symmetry and counterparts)

# The actors: Institutional Sectors

Grouping of institutional units:

S.11 Non-financial corporations

S.12 Financial corporations

S.13 General Government

S.14 Households

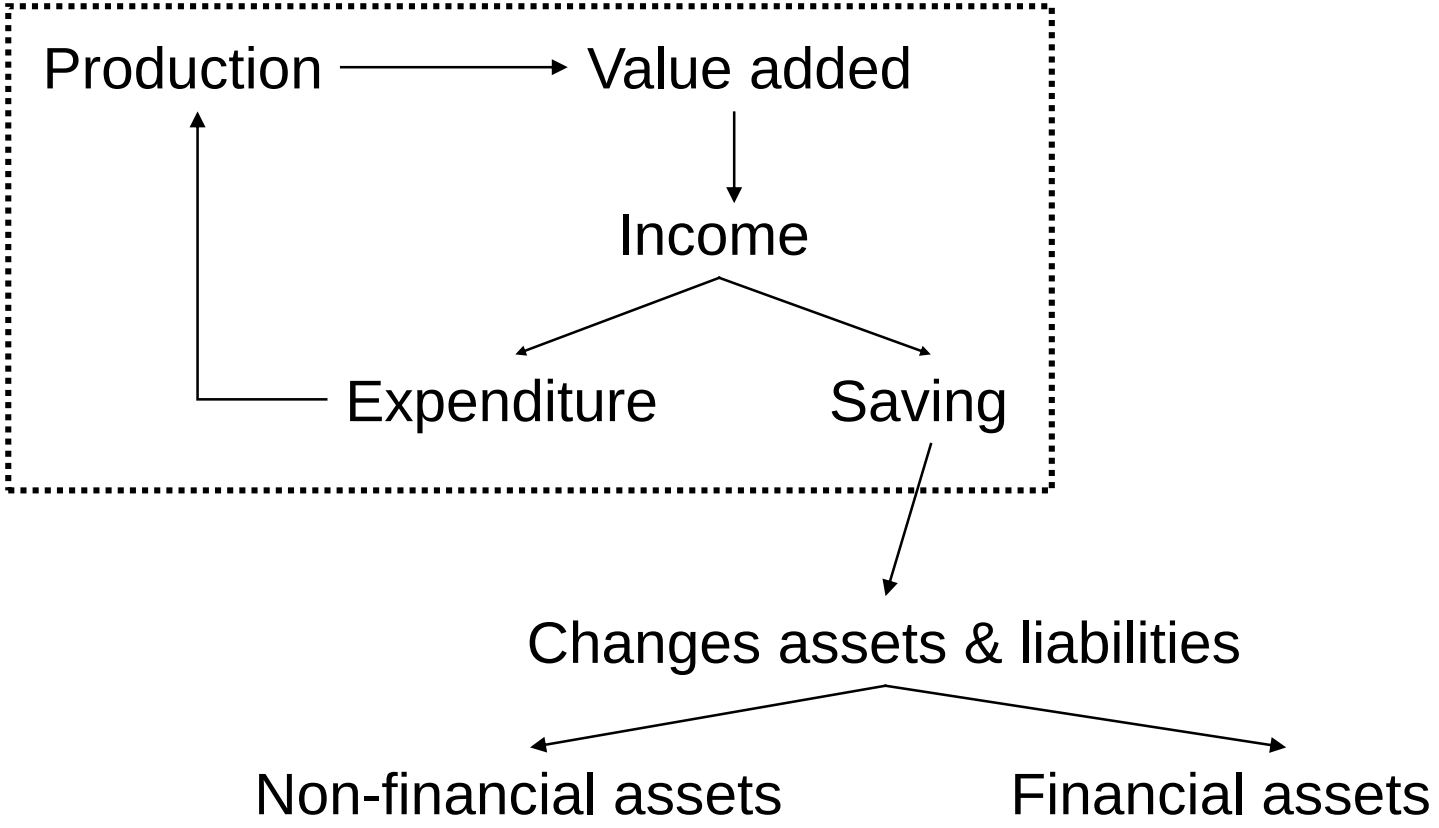
S.15 Non-profit institutions (NPISH)

S.2 Rest of the World (ROW) > Balance of Payments

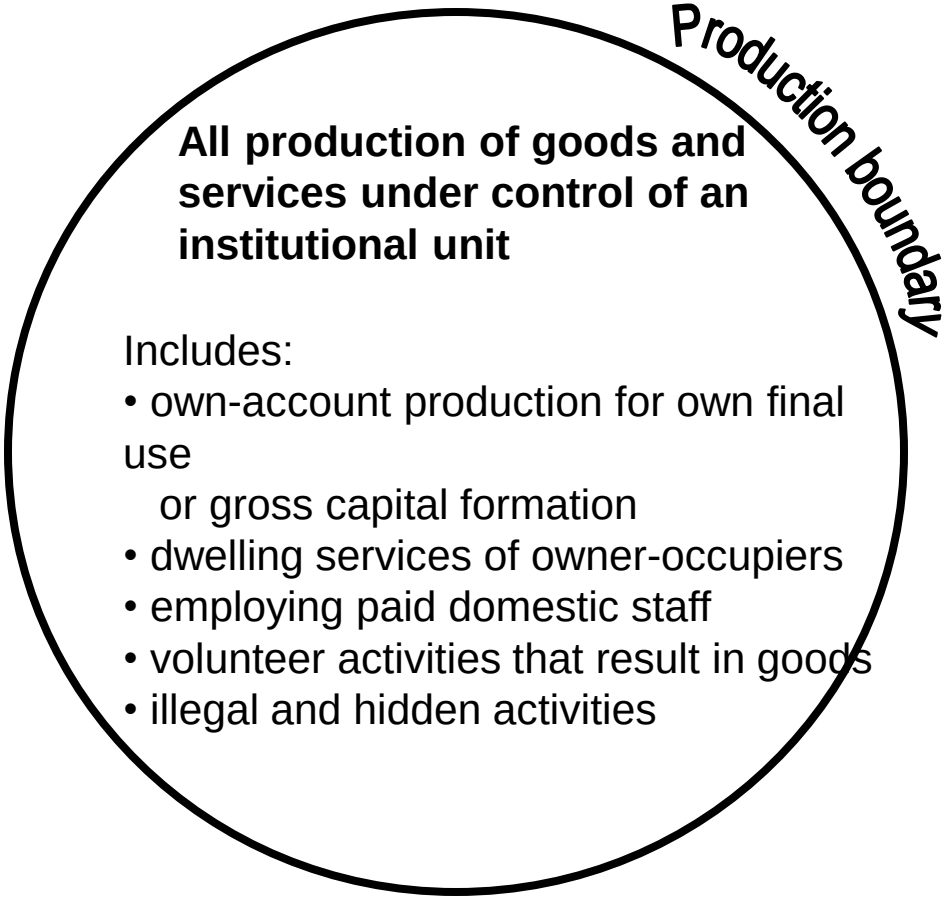
# The actors: Industries

- Grouping of Kind of Activity Units "KAUs"
- Aggregation by activity ("NACE")
- Secondary activities possible
- Some overlap with sectors but not complete
- Input/Output tables…

# A map of national accounts flows



# The production boundary in NA

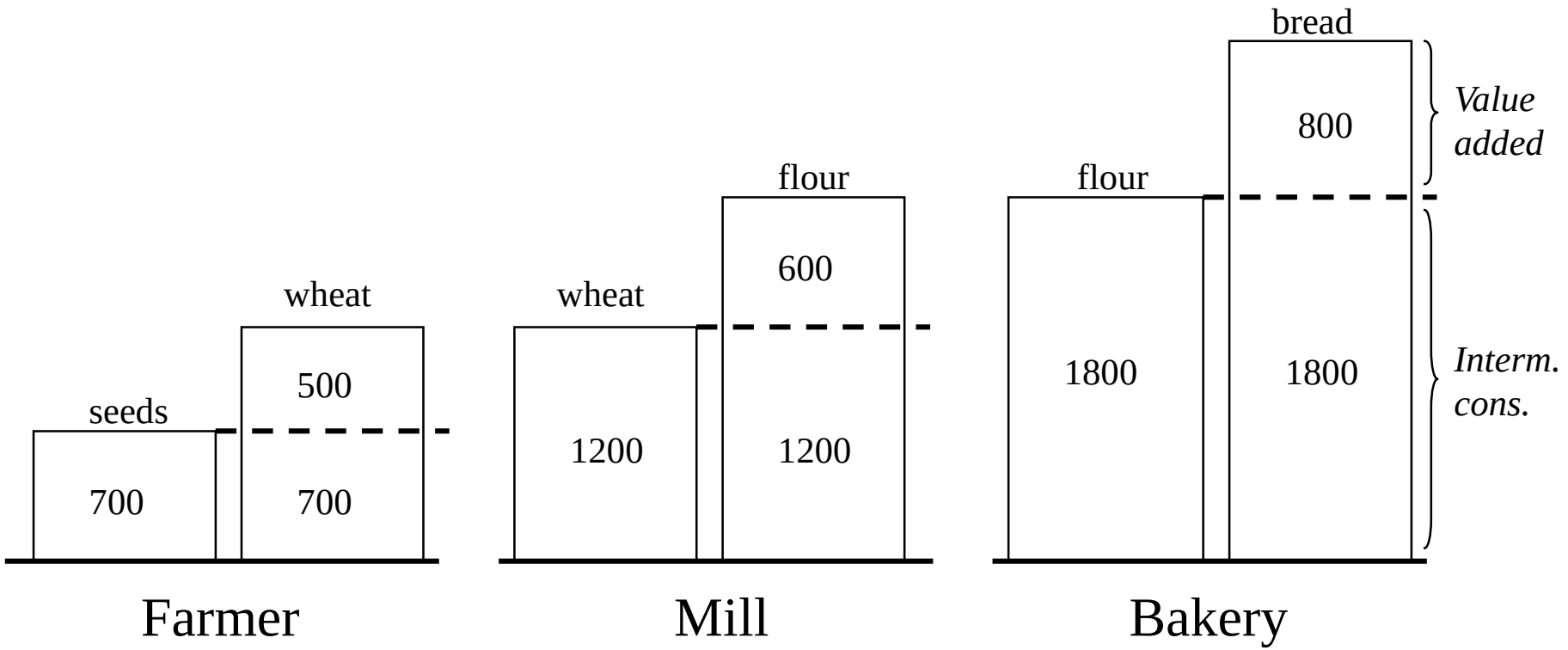



Excludes:

- Natural processes

- Household services (cleaning, cooking, caring, etc.)

# Production and Value added



# Importance of valuation

- Wine producer makes a bottle of wine for 10 euro at **basic price**, i.e. total costs plus profit = 10 €
- **Excise duty** = 20% = 2 €
- Total **transport** costs from producer to wholesaler = 2 €, from wholesaler to supermarket = 3 €, total 5 €
- **Margins** taken by wholesaler = 3 € and by supermarket = 5 €, total 8 €
- **VAT** = 20% of (10+2+5+8) = 20% of 25 = 5 €
- Bottle is sold for 30 € at **purchaser's price**

# GDP (Production) at market prices

*SUM OF ALL VALUE ADDED*

*+ TAXES ON PRODUCTS*

*- SUBSIDIES ON PRODUCTS*

# Measuring government output

*Government produces non-market services*

*>> Zero or artificially low prices*

*Government output is sum of costs:*

*Compensation of employees*

*Intermediate consumption*

*Consumption of fixed capital (depreciation)*

# Expenditure

*Household final consumption expenditure*

*Government final consumption expenditure*

*Investment*

*Trade (Exports, imports)*

$$C + G + I + (X-M) = GDP$$

# Income

*Compensation of employees and mixed income*

*Taxes and subsidies*

*Primary incomes (interest, dividends, rent…)*

*Secondary incomes (social benefits, transfers…)*

# Flows and balance sheets

*Balance sheets are stocks at a point in time*

*Flows explain the changes between balance sheets*

*Flows can be:*

- *Transactions*
- *Revaluations (price changes)*
- *Other…*

# Challenges I: Dealing with hidden activities

*Despite reconciliation of a variety of sources, there are gaps!*

*Various techniques to estimate missing parts (between 3 and 15%...):*

- **Use of labour data**
- **Use of energy and materials**
- **Official studies (e.g. VAT)**

*Illegal activities (smuggling, drugs, prostitution) estimated... normally quite small (<1%).. Introduced alongside ESA 2010...*

- **Example: UK (0.9 – 1.5%) – mostly drugs**

# Challenges II: globalisation

*National accounts are compiled for national economies*

*But many companies cross national borders…*

*Dealing with Amazon, Google, Apple…*

# Challenges III – the "digital economy"

*Are we capturing and measuring the digital economy properly?*

- **"Free" digital services (consumer surplus)**
- **Collaborative platforms (Airbnb, Uber, …)**
- **Price evolution (new products)**
- **Data as a product (database valuation)**
- **Others…?**

# Challenges IV - distributions

*National accounts data are aggregates*

*High focus on (household) distributional consequences of financial crises, globalisation etc*

*Reconciliation of "micro" data with "macro" data*

# GDP = Grossly distorted picture?

- *GDP is measure of net output of goods and services ≠ measure of welfare*
- *Best traditional measure probably NNI: Net national income, but difficult to measure*
- *GDP is not a wealth measure (see Balance Sheets)*
- *GDP to be complemented by other measures (eg on environment, leisure time, etc.)*
  - **Actions under the "Stiglitz report"; "GDP and Beyond"**

# Thank you for listening

*Any questions?*