Economic and finance statistics

National accounts – challenges & criticism

Albert Braakmann, Destatis

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1. Globalisation - background

- Multinational Enterprise (MNE)

- …. and national accounts

- Irish case 2016

1. Globalisation - background

- Irish case:

Year 2015	First	Amended
GDP nominal	+ 13,5%	+ 34,4%
GDP deflated	+ 7,8%	+ 26,3%
Employment	+ 2,6%	(+2,6%)
GNI nominal	+ 5,7%	+ 18,7%
GNI* nominal	--	+ 9,3%

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1.1 Globalisation - concepts

- Definition

  - Foreign owned or controlled

  - Direct or indirect control

  - Special purpose entities and consolidation

1.2 Globalisation - options

- Distinction between national & multinational corporations

    - at level of domestic GVA (and GDP)

    - modified GNI (Irish GNI* or extended GNI / nationality concept)

    - at level of supply-use tables (product-related information)

    - at level of sector accounts

1.2 Globalisation – option SUT

Table 1:   A simplified **supply table**

Industries ╲ Products	National industries			Foreign industries	Total	Imports			Total
	Agriculture	Industry	Service activities			By national industry	By foreign industry	total	
Agricultural products	Output by product and by industry					Imports by product			Total supply by product
Industrial products									
Services									
Total	Total output by industry					Total imports			Total supply

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1.2 Globalisation – option SUT

Table 2:   A simplified **use table**

Industries \ Products	National industries			Foreign industries	Final uses							Total
							Gross capital formation			Exports			
	Agriculture	Industry	Service activities		Final consumption	By national industries	By foreign industries	total	By national industries	By foreign industries	total	Total
Agricultural products	Intermediate consumption by product and by industry				Final uses by product and by category							Total use by product
Industrial products												
Services												
Value added	Value added by component and by industry											Value added
Total	Total output by industry				Total final uses by category							

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1.2 Globalisation – option sector accounts

- Sequence of accounts by national and foreign controlled units

| Accounts	Main items	Balancing item	
Production	output, intermediate consumption	gross value added, GDP	
Primary Distribution of Income	Operating surplus / mixed income, compensation of employees, production & import taxes, subsidies, property income	GNI	
Secondary Distribution of Income	transfer incomes like income & wealth taxes, social contributions & benefits	disposable income	
Use of income	final consumption	saving	
Capital formation	gross & net capital formation, capital consumption, net non-produced assets	net lending / borrowing	
Financial	changes in financial assets & liabilities, by type	net lending / borrowing	

2. Digitalisation

Real labour productivity per person
- Percentage change on previous year -

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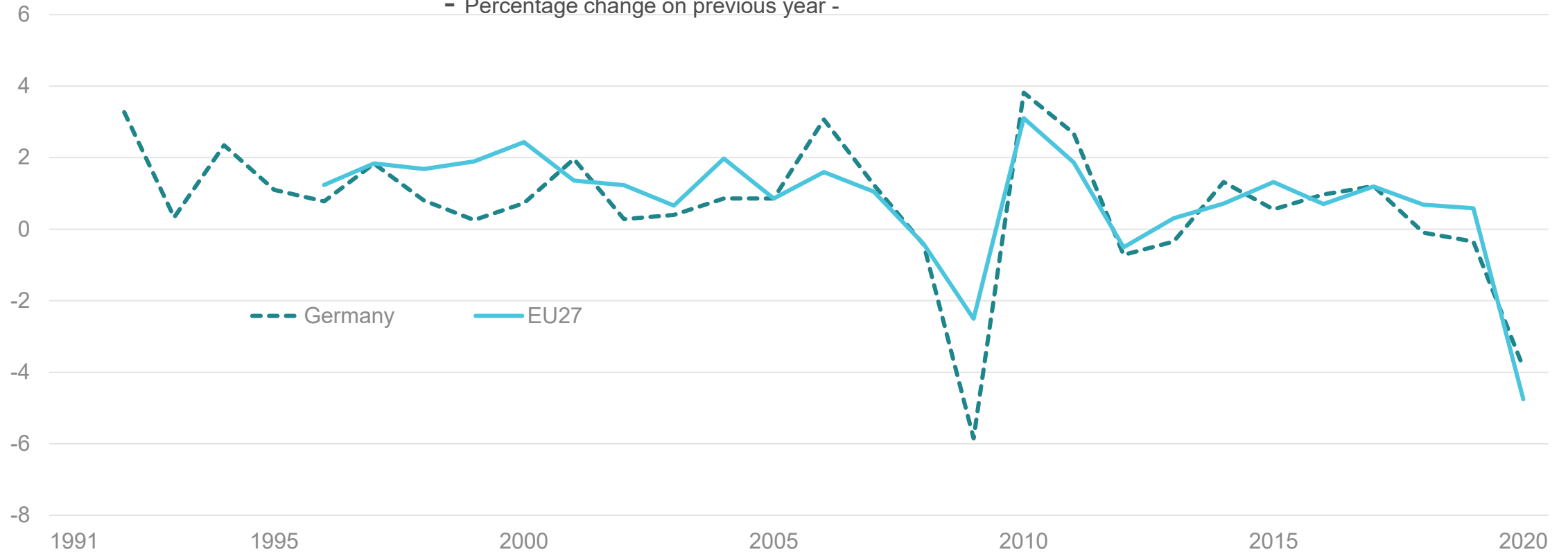
2. Digitalisation

- Issues:

    - Data in national accounts

    - Free digital products

    - Crypto currencies

    - Visibility of digitalisation

2.1 Digitalisation – data

- Starting point:
  - „Software and databases" already in production and asset boundary

- To add data:
  - Definition for data as a result of a production process needed
    - Distinction data and databases
    - Distinction data and observable phenomena
  - Valuation method:
    - Market price and production costs

- Capital consumption

2.2 Digitalisation – free digital products

- Free digital services:

  - Free information products (wiki, maps, weather, traffic etc)

  - Open source software (mail, messenger, platforms etc)

- Additional utility – additional production / consumption?

  - Bundeling approach

  - Bartering approach

2.3 Digitalisation - visibility

- Extended supply-use-tables (e-SUT):

  - Additional rows for digital products,

  - Additional columns for digital industiries,

  - Additional rows for nature of transaction (digitally delivered, or ordered)
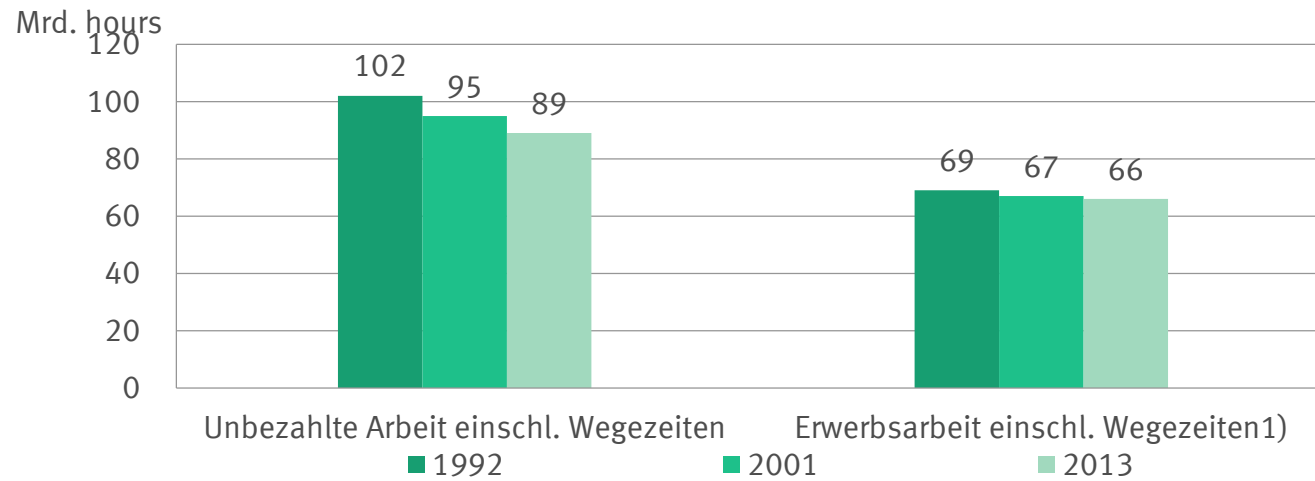
  - etc

3. Wellbeing & Sustainability

- "GDP measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile."

<p style="text-align:right">Robert Kennedy March 18,1968</p>

- Sustainable development goals (United Nations)

- Initiative GDP and beyond (2009 report Stiglitz, Sen Fitoussi)

3.1 Wellbeing & Sustainability – unpaid housework

- Coverage
  - Work carried out without payment by members of a household (for the household)
  - Third person criterion

- Data – time use survey

Mrd. hours

	Unbezahlte Arbeit einschl. Wegezeiten	Erwerbsarbeit einschl. Wegezeiten1)
1992	102	69
2001	95	67
2013	89	66

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3.1 Wellbeing & Sustainability – unpaid housework

- Valuation - Whose wages?

    - Generalists' wage (housekeeper)

    - Specialists' wages (different professions)

    - Average wage

- Valuation - Which wages?

    - gross

    - net

    - net excluding payments for inactive periods (e.g. holidays, sick leave)

3.1 Wellbeing & Sustainability – unpaid housework

- Results
  - GVA from unpaid housework / GVA covered by GDP
    - 2013: 34 %
    - 2001: 36 %
    - 1992: 40%
  - Gender aspects

3.2 Wellbeing & Sustainability – income distribution

- NA provides the distribution by type of income (functional distribution)
- Income distribution by household group (personnal distribution) requires **individual** income data for each household on disposable income (and components):
  - Income tax data
  - Household surveys

- Conceptual harmonisation required:
  - coverage of households: e.g. institutional households, taxpayer

  - Coverage of Income: income from illegal activities, imputed income for owner-occupiers, refunding of private sickness insurers, payments between households, sale of buildings, securities, capital consumption, non-taxable income or flat-rate tax,

- Reconciliation of residual difference

  - Adjustment factor = income aggregate NA / sum of micro-data

  - How reliable if the residual difference is big?

3.2 Wellbeing & Sustainability – income distribution

- Distributional effects of reconciliation:

|	S80/20	S90/10	Gini
before reconciliation	5,6	9,4	0,36
after reconciliation	7,6	14,9	0,43

- Harmonising household size
  - equivalent scale (OECD modified): 1st adult = 1, other adults = 0,5; child below 14 years = 0,3.

- Social transfers in kind
  - Free education or health care etc.

3.3 Wellbeing & Sustainability - Environment

- National welfare index

  - Based on Index of Sustainable Economic Welfare, ISEW (Nordhaus, Tobin)

  - National welfare index (NWI) =
    - Inequality adjusted private consumption expenditure
    - + unpaid housework and voluntary work
    - + public expenditure on health and education
    - ./. costs due to traffic accidents, crime, drug abuse
    - ./. damage costs of water and air pollution, soil degradation, GHG-emission or noise

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3.3 Wellbeing & Sustainability - Environment

Development of the national welfare index (NWI) and the gross domestic product (GDP)

2000 = 100

national welfare Index

gross domestic product (price-adjusted)
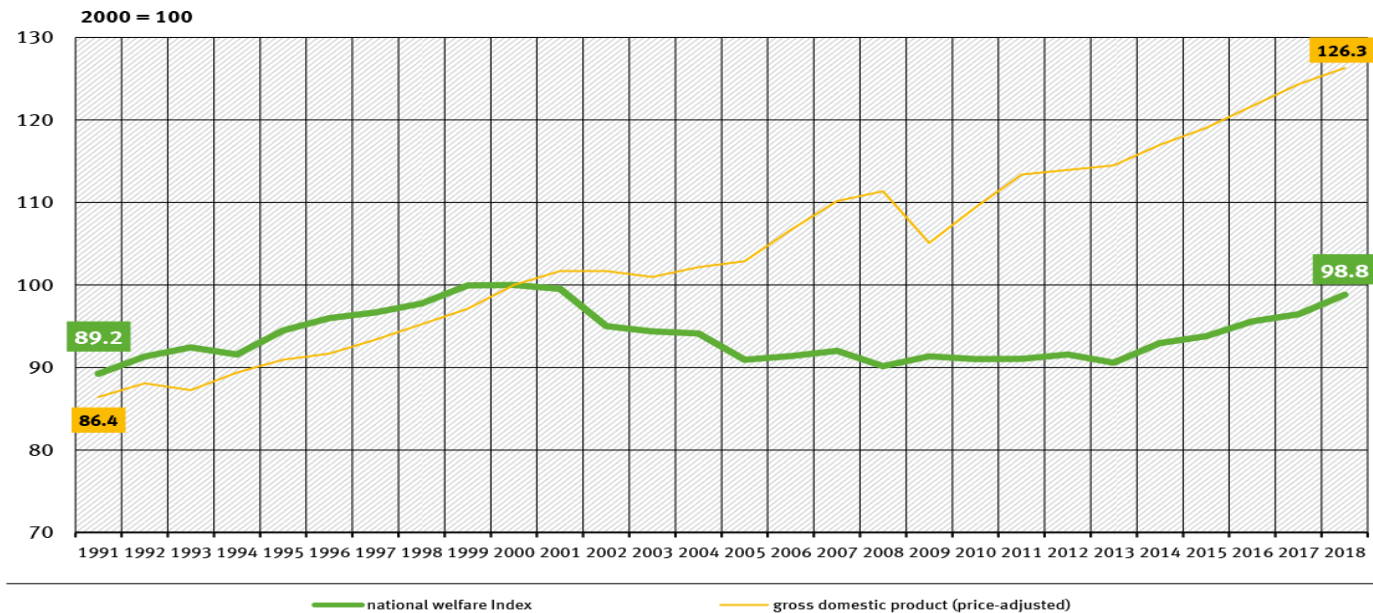
Source: Freie Universität Berlin, Forschungsstätte der Evangelischen Studiengemeinschaft (FEST);
Data for 2018: The Macroeconomic Policy Institute (IMK) 2020, Policy Brief 96, NWI 2020 – Auswirkungen der Coronapandemie auf die Wohlfahrt

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3.3 Wellbeing & Sustainability - Environment

- Starting point:

  - System of environmental-economic accounts – SEEA 2012
    - Focus on: "natural inputs" from the environment to the economy and "residuals" from the economy to the environment

  - Ecosystem services approach

    - Focus on: degradation of ecosystems by human activity damaging ecosystem functioning

- Topical discussion:

  - Deduct environmental damages from GDP?

Thank you for your attention

Contact

Albert Braakmann
albert.braakmann@destatis.de