# What's New in the New System of National Accounts by Peter van de Ven (Lead Editor of the update of the 2008 SNA)

**Training in Advanced Topics in SNA** 

**Biennial IARIW Conference** 

Luxembourg, August 21, 2022

## Agenda

- Origins of national accounts statistics
- SNA and GDP today
- Past updates of the SNA
- Broad overview of the Research Agenda for the update of the 2008
   SNA
- Going beyond GDP
- Outline of the 2025 SNA

The origins of national accounts statistics

## Early attempts to measure the economy

• Luca Pacioli: De Computis (1494): First manual on double-entry accounting



- Verbum Sapienti (1665): First systematic integrated set of national income accounts for England and Wales
- Political Arithmetick (1676): Comparative study of the economic performance of the Netherlands and France
- Francois Quesnay: Tableau Economique (1758): Spiritual parent of today's input-output tables







## The Great Depression and WW 2

#### Colin Clark:

- National Income and Outlay (1937): Measures of aggregate economic activity, national income, from three perspectives: income, expenditure, and production
- Conditions of Economic Progress (1940): Comparative analysis of economic performance across space and time
- Simon Kuznets: *National Income*, 1929 1932 (1934)
- Other countries also started to compile more comprehensive estimates, e.g., Denmark, Netherlands, Norway, Sweden
- UK versus US, with victory for the British methodology





## The birth of the system of national accounts

#### Richard Stone and James Meade:

- An analysis of the sources of war finance and estimate of the national income and expenditure in 1938 and 1940
- Accompanying technical article: The Construction of Tables of National Income, Expenditure, Saving and Investment

#### True landmark in national accounts:

- First set of interconnected accounts using the double-entry bookkeeping method
- Systematization of Clark's approach, but within a Keynesian conceptual framework (formalising the relationships between output, income, consumption, investment and saving)

#### International harmonisation:

- League of Nations Sub-Committee on National Income Statistics: Definition and Measurement of the National Income and Related Totals (adopted in 1947)
- First edition of worldwide standards for System of National Accounts: SNA 1953





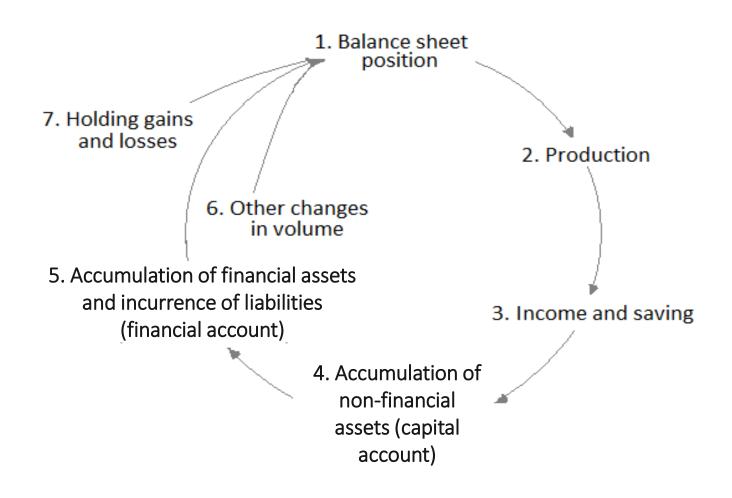
#### After WW 2

- Further proliferation of national accounts and GDP (Marshall Plan)
- GDP versus Net Material Product

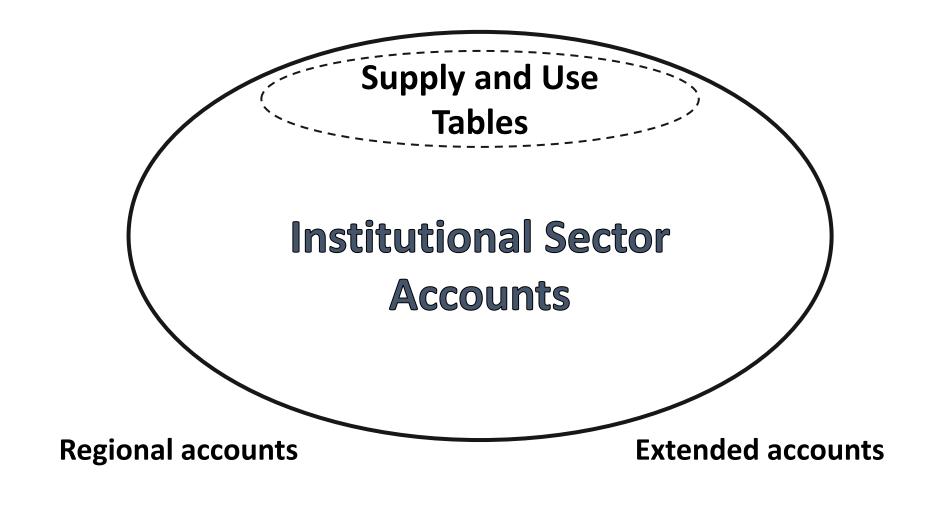


## **SNA** and **GDP** today

# Circular flow of income, expenditure and positions



# Main components of the current system of national accounts



## Supply and use tables (1)

- Detailed description of production process and transactions (supply and use) of goods and services
- Units (establishments) classified in industries
- Supply table
  - Row: supply of goods and services: output (by industry) and imports
  - Column: total output by industry
- Use table
  - Row: use of goods and services: intermediate use and final use (final consumption, investments and exports)
  - Column: output, intermediate consumption and value added by industry

## Supply and use tables (2)

#### Supply table

		Out	put by domestic indu	Imports	Total supply	
		Agriculture	Manufacturing			
Supply by product	Apples	50		50	20	70
	Apple-cider		80	80		80
Sup	Total output/imports	50	80	130	20	150

#### Use table

		Intermediate consumption by domestic industry			Fi	Total use		
		Agriculture Manufacturing Total			Final consumption	Investments	Exports	
Use by product	Apples		30	30	40			70
	Apple-cider			0	60		20	80
	Total intermediate consumption/final uses	0	30	30	100	0	20	150

## Supply and use tables (3)

Supply table

		Out	put by domestic indu	Imports	Total supply	
		Agriculture	Manufacturing			
Supply by product	Apples	50		50	20	70
	Apple-cider		80	80		80
Supply	Total output/imports	50	80	130	20	150

#### Use table (including output and value added by economic activity)

		Intermediate consumption by domestic industry			Fi	Total use		
		Agriculture	Manufacturing	Total	Final consumption	Investments	Exports	
Use by product	Apples		30	30	40			70
	Apple-cider			0	60		20	80
	Total intermediate consumption/final uses	0	30	30	100	0	20	150
Value added (gross)		50	50	100				
Output		50	80	130				

## Supply and use tables (4)

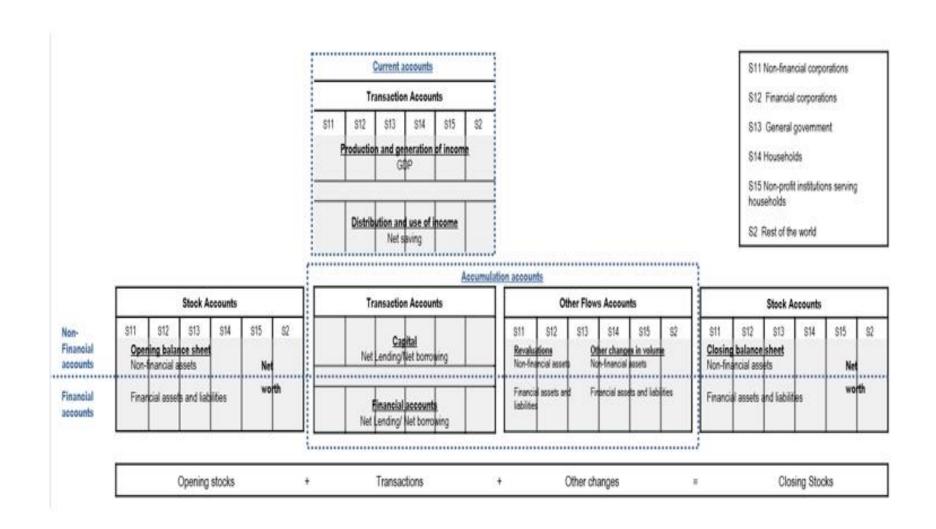
#### Core identity in supply and use tables:

- Total supply = Total use
- Output + Imports = Intermediate consumption + Final Consumption + Investments + Exports
- Output Intermediate consumption = Final
   Consumption + Investments + Exports Imports
- GDP = C + I + X M

## Institutional sector accounts (1)

- Units (institutional units) classified in institutional sectors: nonfinancial corporations; financial corporations; general government; households; non-profit institutions serving households; Rest of the World
- Complete description of economic transactions and positions of institutional sectors
- Transactions and positions classified in accounts representing a specific economic process (e.g. production, income distribution, use of income, accumulation)
- Derivation of relevant balancing items (e.g. GDP, NNI, Disposable income, Saving, Net Lending/borrowing, Net Worth)

## Institutional sector accounts (2)



## The value added of national accounts (1)

#### **Transaction identity**

Non-financial corporations

- For each product: Total supply = Total demand, or P + M = C + I + E + IC
- For each transaction: Total payments = Total receipts

#### **Budget identity**

 Balance of non-financial transactions = Balance of financial transactions (double bookkeeping)

Households

Figure 1.3. Receipt of wages by the employees of a non-financial corporation

Generatio	come account	Allocation of primary income account					
Uses		Resources		Uses Resour			
Compensation of employees	80					Compensation of employees	80
Fin	account	Financial account					
Assets Liabilities					Liabilities		
Deposits	-80			Deposits	80	)	

## The value added of national accounts (2)

#### **Balance sheet identity**

For each balance sheet item (non-financial as well as financial):

```
\Delta stocks =
```

transactions + holding gains/losses + other changes in volume

Also true for Net Worth:

```
Δ Net Worth =
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Changes in net worth (CNW) due to savings and capital transfers +

CNW due to holding gains and losses +

CNW due to other changes in volume

## The value added of national accounts (3)

#### **Closed and consistent framework:**

- Governed by a detailed set of international standards (SNA/ESA)
- Allowing for systematic analysis of the economy, but ...
- ... also allowing for a rigorous quality check of economic data, ...
- ... and providing an excellent tool for compiling consistent data ...
- ... by making use of the various identities!

Much more than GDP

Much less than well-being and sustainability

## Past updates of the SNA

## **Updating Macroeconomic Accounting Standards**

- ➤ Macroeconomic accounting standards are regularly updated to reflect changes in the economy
- The "updates" can be categorized into three main groups:
  - 1. Conceptual Updates (i.e., change in what is measured)
  - 2. Methodological Updates (i.e., change in how activities are measured)
  - **3. Presentational Updates** (i.e., change in how the statistics are presented)
- ➤ In the past decades, more and more attention to arrive at consistency with other standards (e.g., BPM, GFSM, and MFSM)



#### From SNA 1968 to SNA 1993

- Introduction of a full-fledged set of institutional sector accounts, including balance sheets
- Extension of the asset (and production) boundary:
  - Introduction of Intellectual Property Products (IPPs):
    - Mineral exploration
    - Computer software
    - Entertainment, literary or artistic originals
  - Recognition of military expenditures on buildings and equipment as investments (however, expenditures on military weapons not (yet) included)

## Welcoming the knowledge economy!



#### From SNA 1968 to SNA 1993

- Financialization of the economy:
  - Revised sub-sectoring of the financial corporations' sector
  - Definition and treatment of financial instruments refined
  - Allocation of financial intermediation services indirectly measured (FISIM)
- Globalisation started to kick in:
  - Introduction of a distinction between public corporations, national private corporations, and foreign-controlled corporations
  - Change in the treatment of earnings from foreign direct investment
- More details: Annex 1 of SNA 1993

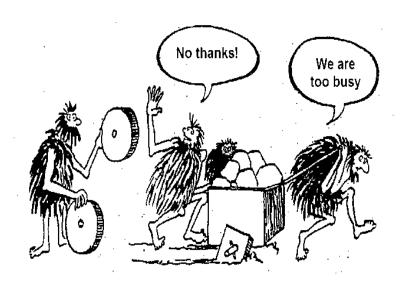


#### From SNA 1993 to SNA 2008

- Further extension of the asset (and production) boundary:
  - Introduction of Research and Development
  - Introduction of military weapon systems (controversial)
  - Software => Software and databases

#### Financialization:

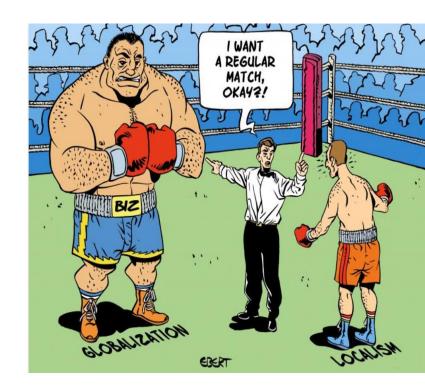
- Further improvements and refinements of the financial corporate sector
- New guidance on financial "innovations"
- Recording of pensions, especially defined benefit schemes
- Continued discussions on FISIM



#### From SNA 1993 to SNA 2008

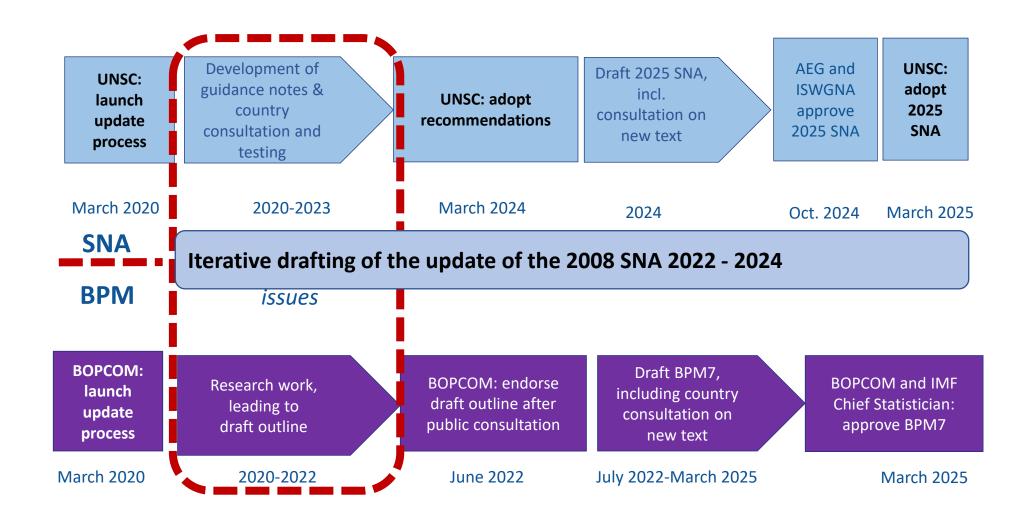
#### Globalisation:

- More guidance on the recording of special purpose entities (SPEs), head offices, holding companies and subsidiaries of multinational enterprises
- Improved clarity on the change of economic ownership as the principle for the determination and the timing of recording transactions
- Revised guidance on goods for processing and merchanting
- More details: Annex 3 of SNA 2008

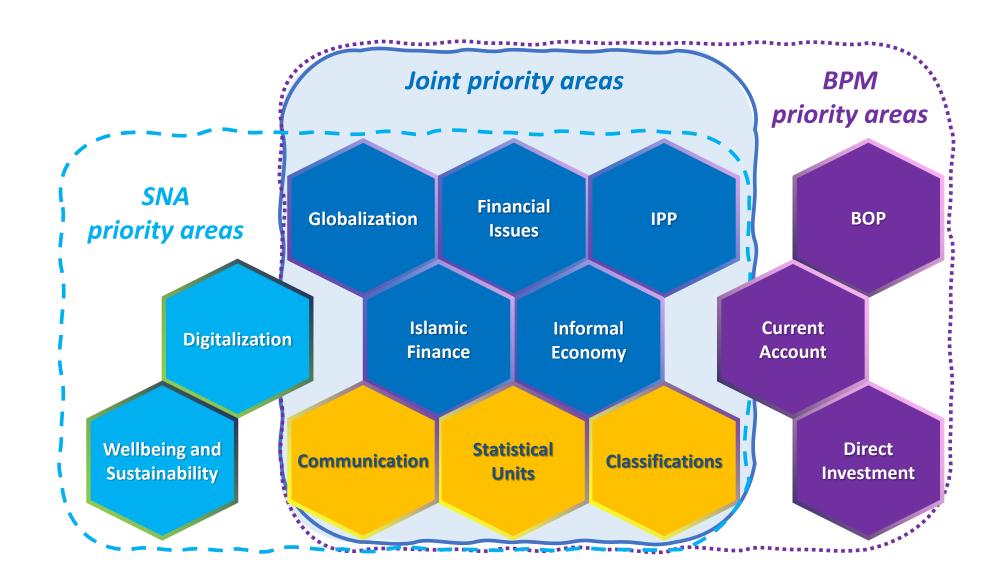


## Broad overview of the Research Agenda for the update of the 2008 SNA

### The update process



## Priority areas of research





## Task teams for each area of research

- The workstreams for each area of research are organized by Task Teams
- Guidance notes are developed for each of the prioritized issues covering both conceptual and practical guidance
- Clearly identify issues affecting the central framework compared with those that would be addressed in supplementary tables or extended accounts
- Not only the conceptual implications but also the **feasibility** of implementing the proposed conceptual solutions
- If needed, a process of experimentation and testing



Ireland's Economists Left Speechless by 26% Growth Figure (Bloomberg)
Why GDP growth of 26% a year is mad (Economist)

It's complete bullshit, it's Alice in Wonderland economics (Colm McCarthy, University College Dublin)

#### **Guidance notes – Globalisation**

- G.1: Valuation of imports and exports
- G.2: Treatment of MNE and intra-MNE flows
- G.3: Transfer pricing within MNE group (combined with GN G.5)
- G.4: Treatment of Special Purpose Entities and residency
- G.5: Economic ownership and recording of intellectual property products
- G.6: Merchanting and factory-less goods producers and recording of their transactions (combined with GN C.4)
- G.7: Global value chains and trade in value-added
- G.8: Typology of global production arrangements (combined with C.4)
- G.9: Payments for "knowledge-based capital"

To be covered in the presentation by Michael Connolly

**Guidance notes – Digitalisation** 

• DZ.1: Price and volume measurement of goods and services affected by digitalization

• DZ.2: Crypto assets (combined with GN F.18)

 DZ.3: Clarifications to the existing SNA treatment of "free" products

 DZ.4: Recording and valuing "free" products in an SNA satellite account

• DZ.5: Digital supply and use tables

• DZ.6: Recording of data in the national accounts

• DZ.7: Artificial Intelligence

• DZ.8: Cloud computing

• DZ.9: Digital intermediary platforms

• DZ.10: Non-fungible tokens

To be covered in the presentation by John Verrinder









## **Guidance notes – Well-being and Sustainability**

- WS.1: Broader framework: How to combine information from the various work streams to provide a more comprehensive and overarching picture of well-being and sustainability
- WS.2: Distribution of household income, consumption, saving and wealth: how to show inequalities in line with macroeconomic indicators
- WS.3: Unpaid household service work: Extending core accounts with alternative measures, as a complement to traditional measures
- WS.4: Labour, education and human capital: Better reflect labour as important input into the production process, and extending the core accounts with information on education and training, as well as start working on experimental estimates for human capital
- WS.5: Health and social conditions: Providing more insight in the role of health care

# Guidance notes – Well- being and Sustainability •



- WS.6: Economic ownership and depletion of natural resources:
- WS.7: Emission permits: the atmosphere as an asset
- WS.8: Accounting for biological resources
- WS.9: Recording of provisions
- WS.10: Valuation methods
- WS.11: Renewable energy resources
- WS.12: SEEA classifications
- WS.13: Recording of losses (dropped)
- WS.14: Distinction between taxes and services

## **Guidance notes – Well-being and Sustainability**

- Presentation Jorrit Zwijnenburg: More details on distribution of household income, consumption, saving and wealth (WS.2)
- Presentation Carl Obst: More details on environmental issues (WS.6 – WS.14)
- Follow-up of this presentation: Issues related to well-being more generally

#### **Guidance notes – Other issues**

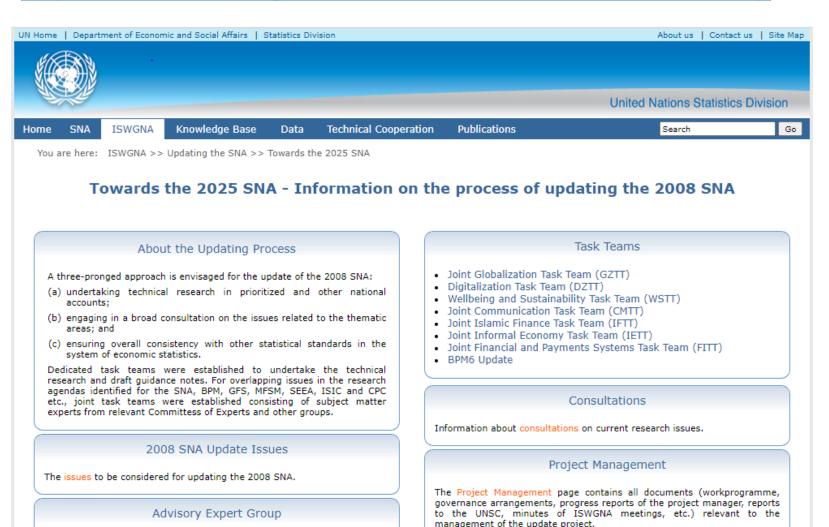
- Communications Task Team (CMTT):
  - Alignment of terminology on type of statistical releases and updates, different types of tables and accounts
  - More user-friendly terms and definitions
  - Assessing alignment to international standards
- Financial Issues Task Team (FITT):
  - Non-bank financial intermediation ("shadow banking")
  - Rather specific recommendations on financial services and instruments (financial derivatives, reverse transactions, factoring, cash collateral)
  - Valuation of financial instruments
- Islamic Finance Task Team (IFTT)
- Informal Economy Task Team (IETT)
- Various issues related to balance of payments, some of which interrelated with above issues

#### More information:

The Advisory Expert Group page contains all available information (agenda, papers, presentations, background information, reports, etc.) available for

each of the AEG meetings.

#### https://unstats.un.org/unsd/nationalaccount/towards2025.asp



# **Going beyond GDP**

# National accounts, well-being (and sustainability)

"GDP - it measures everything in short, except that which makes life worthwhile" (Robert Kennedy, 1968)

"Anyone who believes in indefinite growth on a physically finite planet is either mad, or an economist" (Richard Layard, 2011)

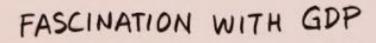
"GDP is often taken as a measure of welfare, but the SNA makes no claim that this is so and indeed there are several conventions in the SNA that argue against the welfare interpretation of the accounts" (United Nations, 2009)

# Alternatives/complements to GDP

- 1972 Measure of Economic Welfare: Nordhaus and Tobin
- 1987 Index of Social Health: Fordham Institute for Innovation in Social Policy
- 1990 Human Development Index: United Nations Development Programme
- 1995 Genuine Progress Index: Redefining Progress Organisation
- 2009 GDP and Beyond: Measuring progress in a changing world (EC)
- 2010 Mis-Measuring Our Lives: Stiglitz-Sen-Fitoussi Commission
- 2010 Better Life Index: OECD
- 2012 Inclusive Growth Index: United Nations Environment Programme
- 2015 Sustainable Development Goals: United Nations

#### In summary

- Lots of criticism on GDP in providing adequate guidance for policy:
  - Does not appropriately measure well-being (including its distribution), or progress of society more generally
  - Does not address environmental issues and ecological boundaries
- GDP ≠ (sustainable) well-being
- GDP ≈ measure of economic activity
- A promising all-encompassing summary indicator for well-being and sustainability, which can meet minimum levels of scrutiny, has not yet been developed
- Best alternative for capturing well-being: dashboard of indicators addressing different aspects of well-being (and sustainability), such as OECD Better Life Index and UN SDGs
- In the case of monitoring sustainability: broadening the measures of capital





# Monitoring well-being (and sustainability)

- Starting point: well-being is a multidimensional phenomenon
- One single measure not feasible
- OECD Better Life Index, various dimensions:
  - Housing
  - Income
  - Jobs
  - Education
  - Civic engagement
  - Health
  - Life satisfaction
  - Safety
  - Work-life balance, etc.



## **Monitoring sustainability**

- More encompassing (monetary) measures of capital:
  - Economic capital
  - Environmental capital
  - Human capital
  - Social capital
- Social capital difficult to define and measure
- Implicitly assumes perfect substitution, while critical levels of especially environmental capital may/do exist
- Monetary measures don't tell the whole story, need to be supplemented by physical measures, which may be much more important in monitoring sustainability

## A response from national accounts

- Within the current system of national accounts:
  - Putting more emphasis on other indicators that can be derived from the system of national accounts
  - Integrating distributional information

- Going beyond the current system of national accounts: establishing a broader framework of accounts, which ...
  - ... address certain aspects of well-being and sustainability
  - ... can support the analysis of broader measures of well-being and sustainability

## Within NA: putting people at the centre

Very valid recommendations made in the **Stiglitz-Sen-Fitoussi Report**, in respect of macro-economic statistics:

- 1. When evaluating material well-being, look at income and consumption rather than production
- 2. Emphasise the household perspective
- 3. Consider income and consumption jointly with wealth
- Give more prominence to the distribution of income, consumption and wealth
- 5. Broaden income measures to non-market activities

# What is feasible within the system of national accounts?

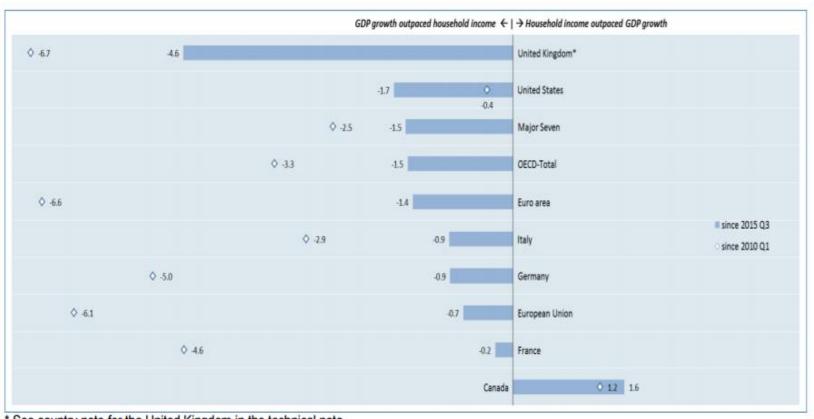
 More prominent use and dissemination of available indicators for the household sector: household (adjusted) disposable income, household final consumption, household wealth, etc.

 Integrate distributional information for income, consumption, saving and wealth of households => presentation Jorrit

 But also: put more emphasis on net measures, adjusted for depreciation and depletion

# GDP growth versus real household adjusted disposable income

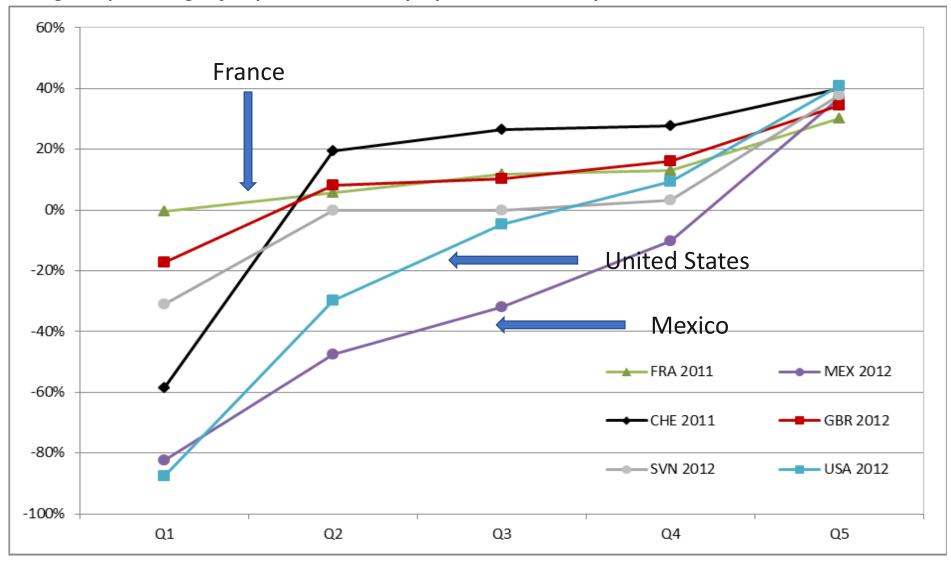
Growth in GDP per capita has outpaced household income per capita in most OECD countries since 2010 Percentage points difference in cumulative growth rates of real household income per capita and GDP per capita



<sup>\*</sup> See country note for the United Kingdom in the technical note.

# Savings ratios by income quintile

Saving as a percentage of disposable income by equivalized income quintile

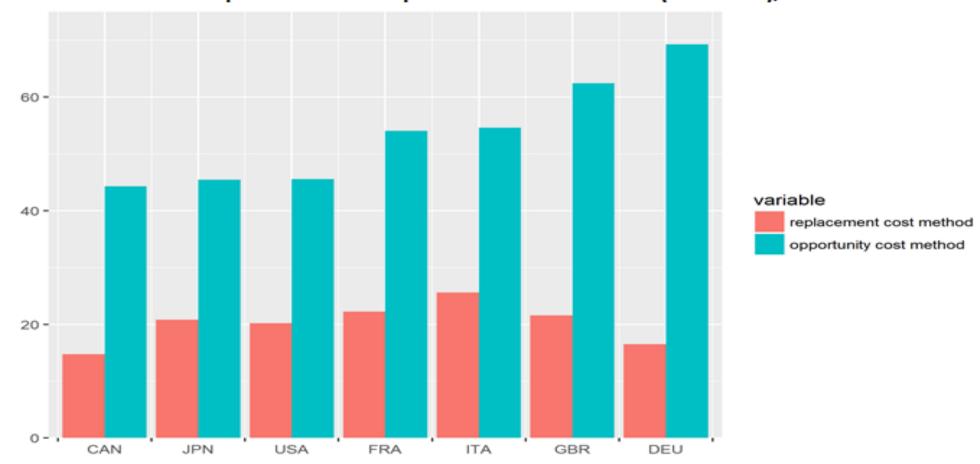


## Beyond NA: a broader framework of accounts

- Primary objective: system of interconnected and integrated accounts, addressing certain aspects of well-being and sustainability
- Pragmatic approach, based on existing international standards and guidance:
  - Unpaid household activities: contribution of unpaid household work to GDP and economic well-being
  - Education and human capital: more details on labour inputs, the role of education, and the measurement of human capital
  - Health and social conditions: more details on health outputs, including inputs for production
  - Economic-environmental accounting (SEEA) => presentation Carl

# Unpaid household activities: contribution to GDP

Value of own-account production of unpaid household services (% of GDP), 2015

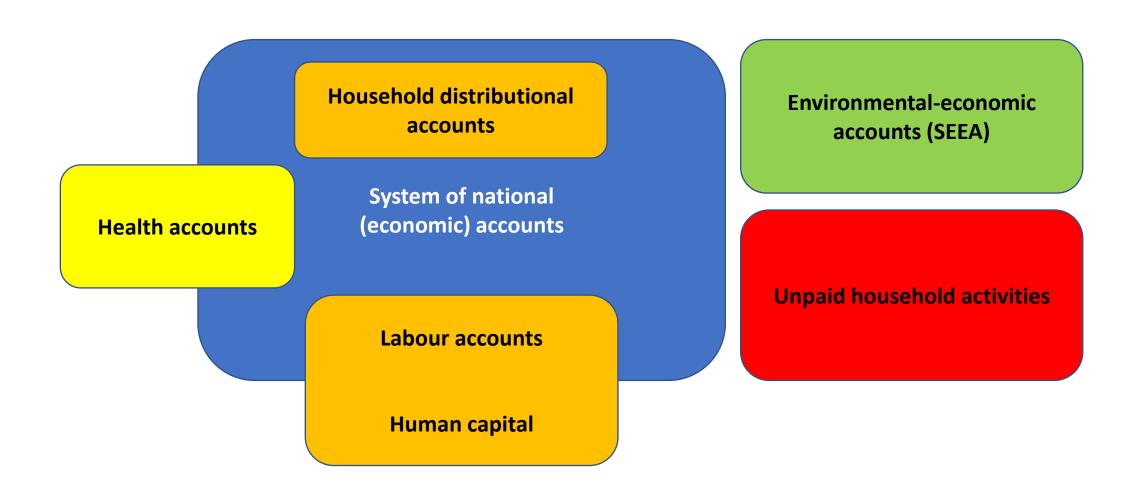


# Unpaid household activities: impact on growth rates

Average annual real growth in GDP, excluding and including an imputed value for unpaid household services

Canada	Period	81-86	86-92	92-98	98-05		05-10	10-15		81-15
	Official	2.39	1.60	4.93	3.31		1.14	2.24		2.39
	Replacement	2.26	1.54	4.57	3.04		1.35	2.02		2.25
	Opportunity	1.98	1.34	3.90	2.51		1.57	1.58		1.96
United Kingdom	Period				95-00	00-05	05-14			95-14
	Official				3.32	2.76	1.08			2.10
	Replacement				3.38	1.92	1.03			1.88
	Opportunity				3.60	0.97	0.99			1.66
United States	Period	75-85	85-98		98-03	03-08	08-10	10-14	14-16	75-16
	Official	3.50	3.26		2.86	2.25	-0.16	2.02	2.17	2.80
	Replacement	3.02	2.96		2.36	1.85	-0.05	1.66	2.32	2.46
	Opportunity	2.60	2.70		1.85	1.47	0.07	1.33	2.46	2.15

## Beyond NA: a broader framework of accounts



## Beyond NA: a broader framework of accounts

- Establishing a much better link between the macro-economic framework and the work on sustainability and well-being
- Providing an improved information basis for analysing trade-offs and win-wins between various aspects of sustainability and wellbeing
- Of special note:
  - Dashboards often contain outcome-based indicators, while the broader framework is often limited to output-based indicators
  - Output is instrumental to achieving certain outcomes
  - Policy to improve outcomes runs via activities and related outputs

#### A Vision for the Future

"So, it has come to this. The global diversity crisis is so severe that brilliant scientists, political leaders, eco-warriors, and religious gurus can no longer save us from ourselves. The military are powerless, but there may be one last hope for life on earth: ................................."

(Jonathan Watts)

#### A Vision for the Future

"So, it has come to this. The global diversity crisis is so severe that brilliant scientists, political leaders, eco-warriors, and religious gurus can no longer save us from ourselves. The military are powerless, but there may be one last hope for life on earth: accountants" (Jonathan Watts)

## **Outline of the 2025 SNA**

## Wellbeing and sustainability

- Issues around well-being and sustainability have become much more prominent in discussing the role and composition of the national accounts, including what the SNA measures or, more importantly, what it does not measure
- Important to address these issues in the 2025 SNA
- Introduction of three new chapters:
  - Chapter 2. National Accounts and measures of well-being and (environmental)
     sustainability: More general discussion on the SNA and measures of welfare, or more
     generally, well-being and sustainability, followed by the introduction of a broader framework
     of national accounts
  - Chapter 34. Measuring well-being: Discussion of the concept of well-being and various approaches/methods to measure it, and how extended accounts can support all of this
  - Chapter 35. Measuring sustainability: discussion on monitoring sustainability using the capital approach, what the SNA does (not) measure, and SEEA as a complementary system to monitor environmental sustainability

## Digitalisation and globalisation

- Two priority research areas which have affected the conceptualisation, the compilation, and the interpretation of the system of national accounts most dramatically
- Introduction of two new chapters, to consolidate the growing understanding of these phenomena, including their impact on the compilation and interpretation of (the main macro-economic indicators derived from) the system of national accounts
  - Chapter 22. Digitalisation: focus on recording of recently emerged phenomena, such as digital intermediary platforms, "free" services, crypto assets, data, e-commerce, etc.; and addressing the compilation of supplementary tables such as digital supply and use tables
  - Chapter 23. Globalisation: consolidated overview of the newly established guidance on global production arrangements, SPEs, the impact of the minimisation of the global tax burden, etc.; and tools for betting understanding domestic developments (breaking out transactions and positions of multinational enterprises, Global Value Chains, Trade in Value Added, and the consolidation of corporate activities using the "nationality" perspective
- Note: Dual character of these chapters

#### Supply and use tables, labour accounts and capital services

- Some discussion on the allocation of the chapter on supply and use tables, given its increasing role in compiling national accounts
- However, ... would break the logic of the SNA, certainly if taking into account the more prominent role of labour accounts
- In the end, it is proposed to group together the three chapters with a focus on statistics by industry, as follows:
  - Chapter 15. Supply and use tables
  - Chapter 16. Labour accounts (Note: Moved upwards, and re-allocation of the part on population)
  - Chapter 17. Capital services (Note: Moved upwards, and re-allocation of the part on valuation of assets)
- It is also proposed to pay much more attention to these tables and accounts in the introductory chapters

#### Other considerations regarding the structure

- Some discussion on the allocation of the chapter on price and volume measures,
   given the prominence of volume measures in policy and research
  - Not changed, mainly because of the logic of the story-telling
  - However, more attention in the introductory chapters
- Proposed to split the lengthy chapter on **cross-cutting issues**, add a chapter on Islamic finance, thus arriving at the following chapters, in addition to digitalisation and globalisation:
  - Chapter 24. Insurance and pensions (Part 1 and 2 of chapter 17 in the 2008 SNA)
  - Chapter 25. Specificities of certain financial instruments (Part 3, 4 and 6 of chapter 17 in the 2008 SNA)
  - Chapter 26. Islamic finance (new chapter)
  - Chapter 27. Contract, leases, licenses and permits (Part 5 of chapter 17 in the 2008 SNA)

#### Other considerations regarding the structure

- Splitting the current chapter 21 on measuring corporate activity into two chapters, one dealing with non-financial corporations (chapter 28 in the 2025 SNA, and another one focusing on financial corporations (chapter 29 in the 2025 SNA)
- Refocusing the current chapter 27 on links to monetary statistics and the flow of funds to matrix-based presentations of institutional sector accounts (from-whomto-whom tables) (chapter 37 in the 2025 SNA)
- New chapter 21 on communicating the accounts, in view of the outcomes of CMTT:
  - Terminology for revisions of estimates and the status of statistics (official statistics versus experimental estimates), including the various types of additional accounts and tables
  - The assessment of the alignment of a country's national accounts with the international standards
  - Probably some other topics as well
- Re-allocation of the current chapter 25 on Informal aspects of the economy

#### Other more substantial changes to chapters

- Chapter 1. Introduction: More prominence to volume and price measures; basic identities of the system; net measures; and slightly more elaborated information on the links with other statistical standards and business accounting standards
- Further elaboration of text on productivity, and re-allocation to chapter 18.
   Measuring prices, volumes and productivity
- Adding text on balancing the accounts to chapter 19. Summarising, integrating and balancing the accounts
- Refocusing the current chapter on elaborating (and presenting) the accounts (Ch.18 in the 2008 SNA and Ch.20 in the proposal for the 2025 SNA) to the following topics, thereby also paying more attention to institutional sector accounts:
  - Temporal disaggregation (e.g., quarterly accounts)
  - Territorial disaggregation (e.g., regional accounts)
  - Regular and benchmark revisions, and the compilation of time series data

## Other more substantial changes to chapters

- Complete redraft of the current chapter 29 on satellite accounts and other
  extensions towards chapter 38 focusing on thematic (satellite) accounts, including
  re-allocation of text on extended accounts for well-being and sustainability to
  chapters 34 and 35, and re-allocation of text on functional classifications to the
  relevant annex
- Paying much more attention to the relationship between and the consistency of the various international standards for compiling macro-economic statistics, by:
  - Including succinct information in chapter 1 (see above)
  - More detailed information in the relevant chapters on institutional sectors, and the chapter on sustainability
  - Adding a separate annex on the interrelationships

#### A. Introduction and overview

**Chapter 1. Introduction (revised content)** 

**Chapter 2. National accounts and measures of well-being and (environmental) sustainability (new chapter)** 

**Chapter 3. Overview of the integrated framework (revised title)** 

#### B. The main foundations

Chapter 4. Flows, stocks and accounting rules (revised title)

Chapter 5. Residence, institutional units and sectors (revised title)

Chapter 6. Enterprises, establishments and industries

C. Structure of the framework and the sequence of economic accounts						
Chapter 7. Production account						
Chapter 8. Earned income accounts (revised title)						
Chapter 9. Transfer income accounts (revised title)						
Chapter 10. Use of income accounts						
Chapter 11. Capital account						
Chapter 12. Financial account						
Chapter 13. Other changes in assets and liabilities accounts						
Chapter 14. Balance sheet						
Chapter 15. Supply and use tables (revised title)						
Chapter 16. Labour accounts (chapter 19 in the 2008 SNA, moved upwards, revised title and content)						
Chapter 17. Capital services (chapter 20 in the 2008 SNA, moved upwards, revised title and content)						
Chapter 18. Measuring prices, volumes and productivity (revised title and revised content)						
Chapter 19. Summarizing, integrating and balancing the accounts (revised title and revised content)						
Chapter 20. Elaborating the accounts (moved upwards, revised title and revised content)						
Chapter 21. Communicating the accounts (new chapter)						

#### **D.** Cross-cutting issues

**Chapter 22. Digitalisation (new chapter)** 

**Chapter 23. Globalisation (new chapter)** 

Chapter 24. Insurance and pensions (Parts 1 and 2 of chapter 17 in the 2008 SNA, moved downwards)

Chapter 25. Selected issues on financial instruments (Parts 3, 4 and 6 of chapter 17 in the 2008 SNA, moved downwards)

**Chapter 26. Islamic finance (new chapter)** 

Chapter 27. Contracts, leases, licenses and permits (Part 5 of chapter 17 in the 2008 SNA, moved downwards)

#### E. Institutional units and sectors in more detail

**Chapter 28. Non-financial corporations (revised title and revised content)** 

**Chapter 29. Financial corporations (new chapter)** 

Chapter 30. General government and the public sector (revised title)

**Chapter 31. Non-profit institutions** 

**Chapter 32. Households (revised title and revised content)** 

Chapter 33. Transactions and positions between residents and non-residents (moved upwards, revised title)

#### F. Extended and thematic accounts and tables

**Chapter 34. Measuring well-being (new chapter)** 

**Chapter 35. Measuring sustainability (new chapter)** 

Chapter 36. Input-output tables (moved upwards, revised title and revised content)

Chapter 37. From-whom-to-whom tables (chapter 27 of the 2008 SNA, moved downwards, revised title and revised content)

Chapter 38. Thematic accounts (moved upwards, revised title and revised content)

Chapter 39. Informal activities (moved downwards, revised title)

#### G. Supplementary material

Annex 1. International standards for macro-economic statistics, and the links with the SNA

Annex 2. The classification hierarchies of the SNA and associated codes (revised content)

Annex 3. The sequence of accounts

Annex 4. Changes from the 2008 System of National Accounts (revised title)

Annex 5. Research agenda

References

**Glossary** 

Index

# **Thank** you for your attention!





