#### THE OECD GOING DIGITAL PROJECT – INITIATIVES TO MEASURE THE DIGITAL ECONOMY

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- Going Digital the Project
- Measurement initiatives in Statistics
  - 1. Satellite accounts digital SuTs
  - 2. Recording and Measuring Data
  - 3. Measuring digital trade
  - 4. Assessing impact of digitalisation on SNA aggregates



### **GOING DIGITAL: THE PROJECT**

#### IDENTIFYING GAPS AND CO-DEVELOPING A ROADMAP

- Individuals' trust in online environments
- Digital security in business
- Skills in the digital era
- Platform mediated workers
- Internet of Things
- Diversity of content online
- Data and data flows
- Online platforms
- Cloud computing services
- E-commerce
- Digital transformation in sectors
- Potential of survey microdata

- Exploiting digital footprints
- Digital economy satellite accounts
- Digital trade
- Prices
- Open government data
- Wellbeing metrics

#### WHAT ACTIONS?



#### MEASURING THE DIGITAL TRANSFORMATION -KEY ELEMENTS OF PUBLICATION







#### MEASUREMENT INITIATIVES IN STATISTICS



#### Many entry points to the Digital Economy



#### Advisory Group on Measuring GDP in a Digitalised Economy



#### **1. Digital Supply-Use Tables**



#### Under development: Digital Supply-Use tables

- Framework that
  - Countries could fit within their current statistical framework and measurement processes.
  - Provides balance between practically possible and statistically informative.
  - Includes agreed definitions
- Does not produce "Digital GDP" but provides various indicators that can be internationally compared such as,
  - The total output of the digitally enabling industries.
  - The **total value of e-commerce** (i.e. digitally ordered goods and services).
  - The total value of services provided by intermediary platforms as a separate proportion of the overall value of the goods and services



#### **Digital SUTs**

- Current SUTs provided to the OECD includes 98 industries and 98 products
- 5 newly defined products.
- 10 traditional products broken down by type of transaction involved.
- 6 newly defined "digital industries" based on the characteristics of the unit.



- The **most significant determinant** of something being considered digital **is the method of transaction.**
- Various products in the SUT are further broken down depending on if they were,
  - digitally ordered,
  - digitally delivered,
  - platform enabled

non digitally ordered



 The split of transaction type is the most important data requirement for countries looking to populate the tables.







- **5 newly defined products** and **10 traditional products** that are further broken down by transactional information.
- These are products that have been heavily impacted by the uptake in digital technology.
  - 1. Digital goods
  - 2. Digital services except cloud computing services and digital intermediary service products
  - 3. Digital intermediary service products
  - 4. Cloud computing services
  - 5. Free digital services

- 6. Accommodation services
- 7. Food and beverage service activities
- 8. Land transport services
- 9. Travel agent, tour operator, reservation services and related activities
  10.Advertising and
  - market research

services

- 11. Education services
- 12.Motion picture video and TV program production services
- 13.Financial and insurance services
- 14.Gambling and betting activities
- 15.Retail trade

Countries are **free to further break down additional products** if the have the data.







- The proposal includes **6 "Digital Industries"** as well as an "other industry" category which includes data split by ISIC and currently provided in the S-U tables.
- Units can be placed into these industries based on shared activities / characteristics.
  - 1. Digitally enabling industries
  - 2. Digital intermediary platforms
  - **3. Firms dependent on intermediary platforms** (further separated into those that are incorporated and unincorporated)
  - 4. E-Sellers (split into E-

Tailers and E-Vendors)

- **5.** Digital only firms providing finance
- 6. Other digital businesses
- 7. Other industries (broken down according to the standard supply and use tables)





- Presentation to Advisory Expert Group on National Accounts on Nov 27 – 29.
- Final proposal by end of 2018.
- Some countries may begin populating some components of the table in 2019.
- Final template presented to the OECD Committee on Statistics and Statistical Policy in June 2019



### 2. Recording and Measuring Data (in general and in the SNA)



Recording and Measuring Data (in general and in the SNA)

 Proliferation of data in economic decision making, business models and society at large



• Current (2008) SNA not well equipped to reveal the increasing role of data

#### Many outstanding questions

- Produced-non-produced asset?
- Valuation of data
  - Costs
  - Inherent value, but how?
- Market-equivalent prices (digital identity data versus digital footprint data)
- Assuming relationship between advertising revenues and the value of the free services and data
- User-based valuations: willingness to pay/accept
- Conceptual discussions have only started







#### **3. Measuring Digital Trade**



#### Measuring digital trade

- The *internet* and the movement of *data* across borders are changing the nature, patterns and actors of international trade
- Little cross-country comparable, detailed data is available to answer policy questions
- Many issues for digital trade are similar to those for the digital economy but others are not, e.g.,
  - Potential under estimation, e.g. merchandise trade below the *de minimis* threshold due to cross-border digital ordering, or digitally ordered & digitally delivered services
  - Residency unclear



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#### Measuring digital trade

- Measurement framework developed
- Inventory of current measurement practices of > 70 countries via OECD-IMF stocktaking questionnaires
- Inter-agency Handbook on Measuring Digital Trade, coordinated by OECD and WTO
- Near-final draft end 2018



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### 4. Assessing Impact of Digitalisation on SNA Aggregates

# Assessing impact of digitalisation on SNA aggregates

- GDP, Investment, Private consumption and real income, Prices
- Important issues (quality change, free products,...)
- Conceptual and empirical work:
  - Ahmad and Schreyer 2016; Ahmad, Ribarsky and Reinsdorf 2017; Reinsdorf and Schreyer 2017,...
  - Baseline: long-term slowing of economic growth and productivity not primarily statistical phenomenon

# Assessing impact of digitalisation on SNA aggregates

- Need to think about household (satellite) accounts to capture new non-market activities
- Include inside SNA production boundary?
- Work on prices
  - Customisation
  - Dynamic price discrimination
  - Rapid quality change
- Problem sometimes part of the solution





- Digitalisation is policy and measurement challenge
- Countries, IOs –including OECD – have started tackling the question: *Going Digital*
- A full measurement agenda ahead!





### Thank you!