

**UN-ECLAC,
UNCTAD, and IMF
Webinar
Measurement of the
digital economy and
trade in Latin
America and the
Caribbean**

November 8-11, 2022



STATISTICS

**Digitalization and Cross-
Border Statistics**

Statistics Department, IMF

Outline

- **Background: Rise of Digitalization**
- **BPM6 / SNA 2008 updates on Digitalization**

From policy questions ...towards measurement

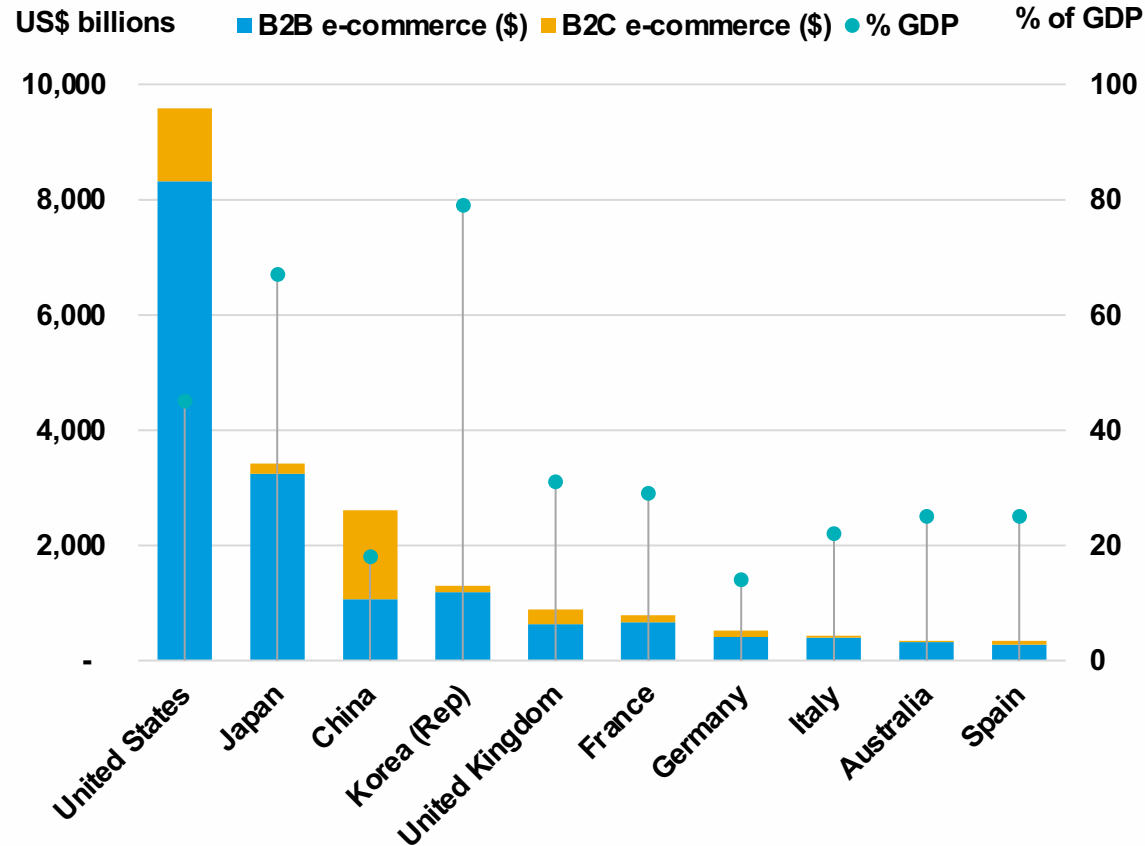
Digital transformation is entering a **new phase**... new technologies and new business models present opportunities to enhance efficiency, innovate faster, develop new markets, but new challenges also arise with the disruption of supply chains, labor markets, and some industries

The ability to move data across borders supports the expansion of a wide range of economic activities and international trade. Data flows are particularly crucial for trade in services, and to facilitate cross-border payments

While the pandemic has accelerated the digital transformation of much of the world's economy, not all countries are advancing at the same pace...

Rise of Digitalization – unprecedented scale of digital transactions

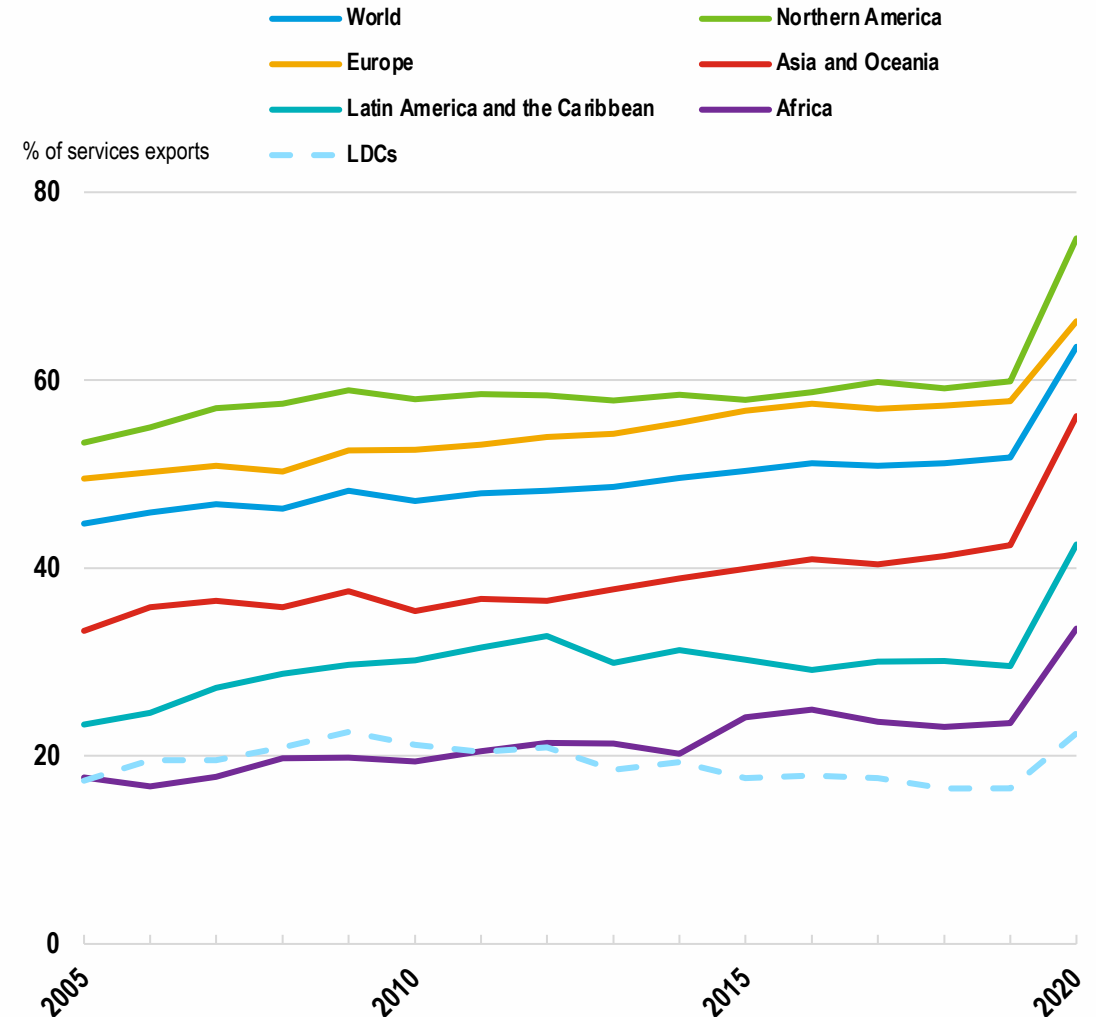
E-commerce sales, 2019



Source: UNCTAD (2021), "Estimates of global e-commerce 2019 and preliminary assessment of COVID-19 impact on online retail 2020" (https://unctad.org/system/files/official-document/tn_unctad_ict4d18_en.pdf).

Note: for some countries the B2B or B2C component is estimated by UNCTAD due to data availability

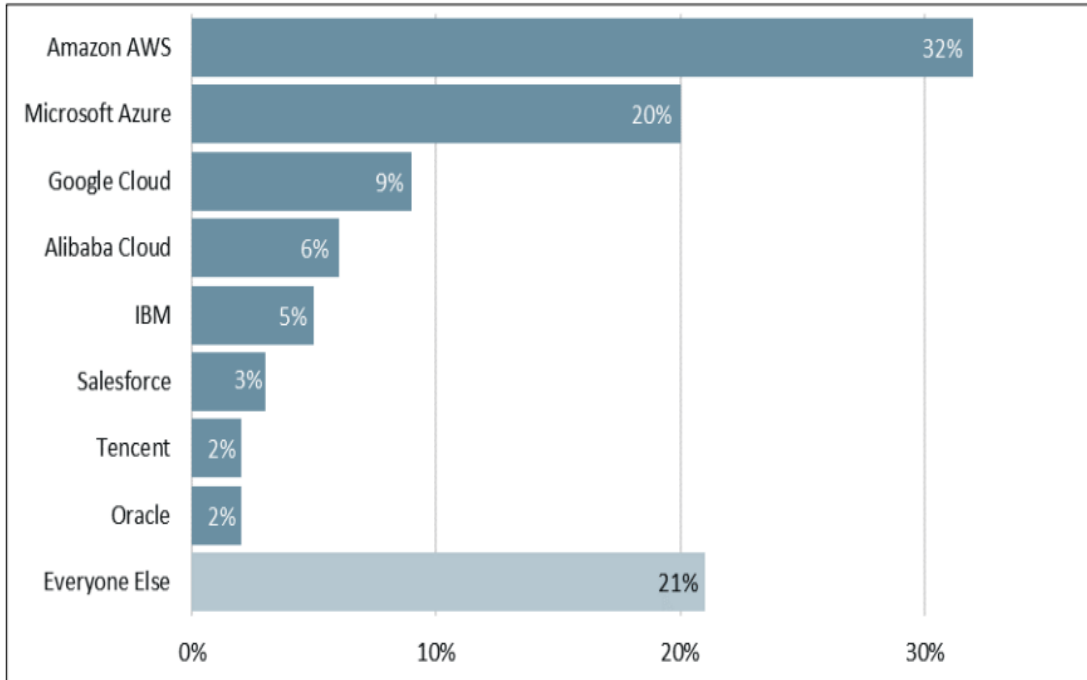
Digitally deliverable services exports



Source: UNCTAD (2022), "Digital trade: Opportunities and actions for developing countries" (https://unctad.org/system/files/official-document/presspb2021d10_en.pdf)

Digital Trade ...some facts

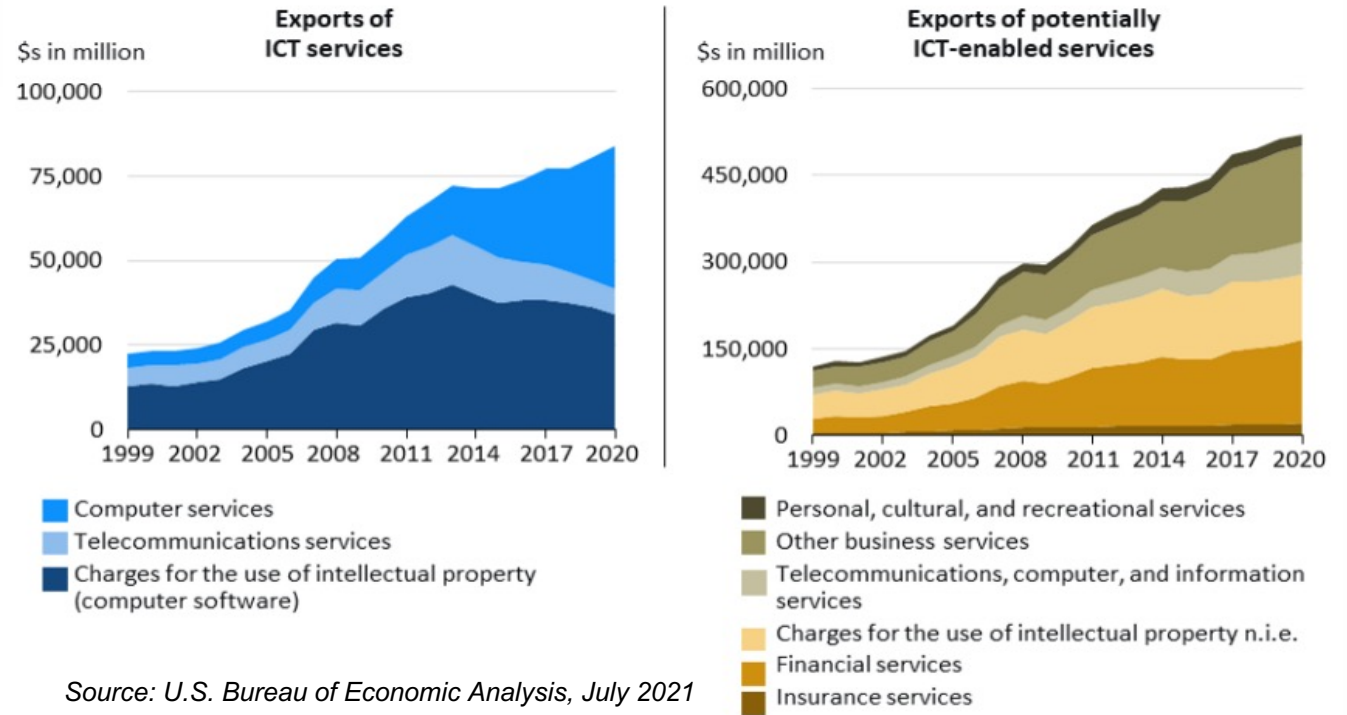
Cloud Computing Infrastructure Global Market Share, as of end 2020



Source: Synergy Research Group, "Cloud Market Ends 2020 on a High while Microsoft Continues to Gain Ground on Amazon," February 2, 2021.

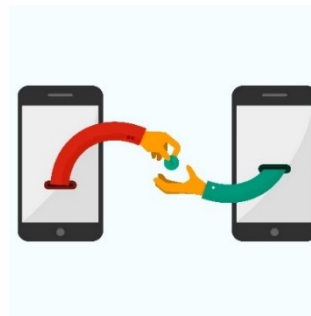
India – a major provider of software and IT-enabled services in the global arena, contributing nearly half of the total services exports of India in recent years (BOP data, RBI Bulletin)

U.S. Trade in ICT and Potentially ICT-Enabled Services, by Type of Service



Source: U.S. Bureau of Economic Analysis, July 2021

China: According to China Customs, in recent years, the volume of cross-board e-commerce has increased by over 30% per year.



Mobile money: increasing use of digital platforms to make remittances (e.g., Uganda, Kenya, Philippines)

Policy questions

- **Size and importance** of digital flows? > for **GDP**, but also for **Trade**?
- **Opportunities** > for SMEs, developing countries?
- **Barriers to digital trade** > data/privacy?
- At present, *little cross-country comparable, detailed data are available* to answer these policy questions.

Data Gaps and opportunities

..... Created..

➤ New products

- Crypto assets

➤ New enterprises

- Fintech

➤ Measurement Issue

- Identification and recording of digital intermediary platforms,
- Valuation of free assets and free services,
- Cloud computing and artificial intelligence.

However, Created Opportunities for compilers.... New data source

Outline

- **Background: Rise of Digitalization**
- **BPM6/SNA 2008 Updates on Digitalization**

BPM6/2008 SNA Update – selected topics on Digitalization

- Recording of Crypto Assets
- Impact of Fintech on Macroeconomic Statistics
- Digital SUTs
- Artificial Intelligence
- Cloud Computing
- Digital Intermediary Platform
- Treatment of “Free” Digital Products
- Recording and Valuing of Data

BPM6/2008 SNA Update: Digital International trade in Goods and Services

- **separate accounting framework to separately identify digital trade** (OECD-WTO-IMF Handbook for Measuring Digital Trade).
- **maintaining the BOP services breakdown as a product-based classification (except for the transactor-based items).**

“what” is traded, vs “how” the products are traded

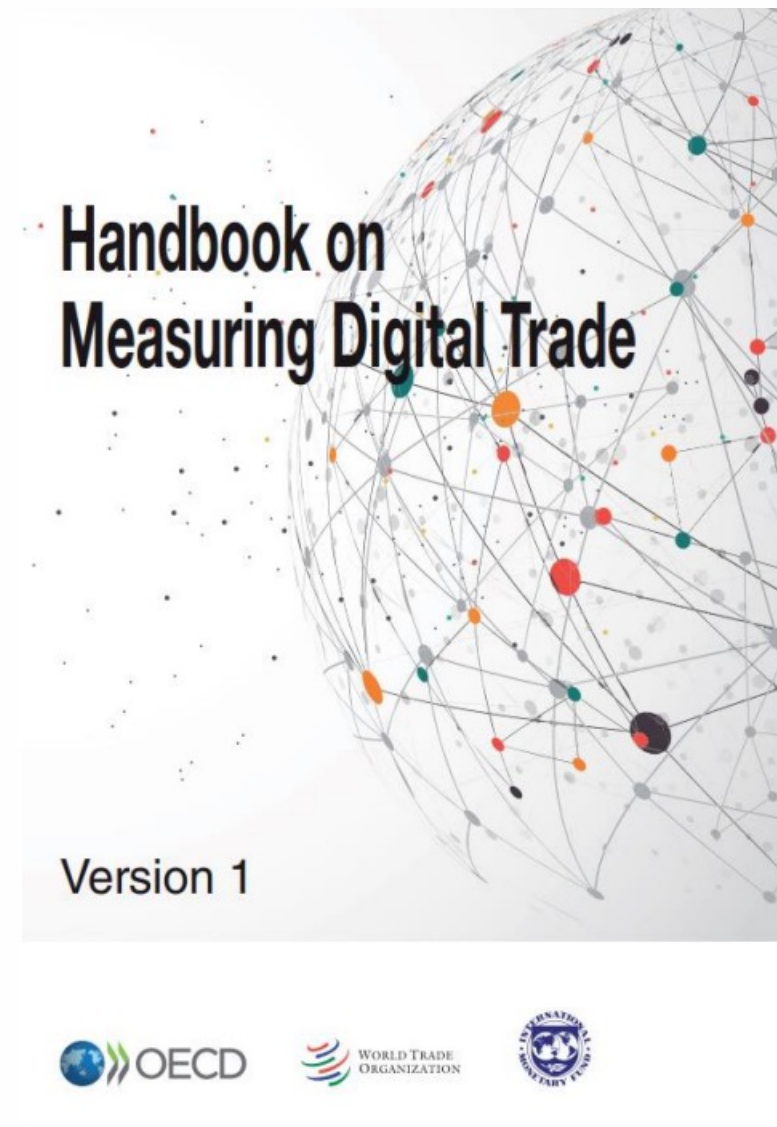
- **Clarification and guidance for:**

- Treatment of intermediation services (Digital Intermediation Platforms or DIPs).

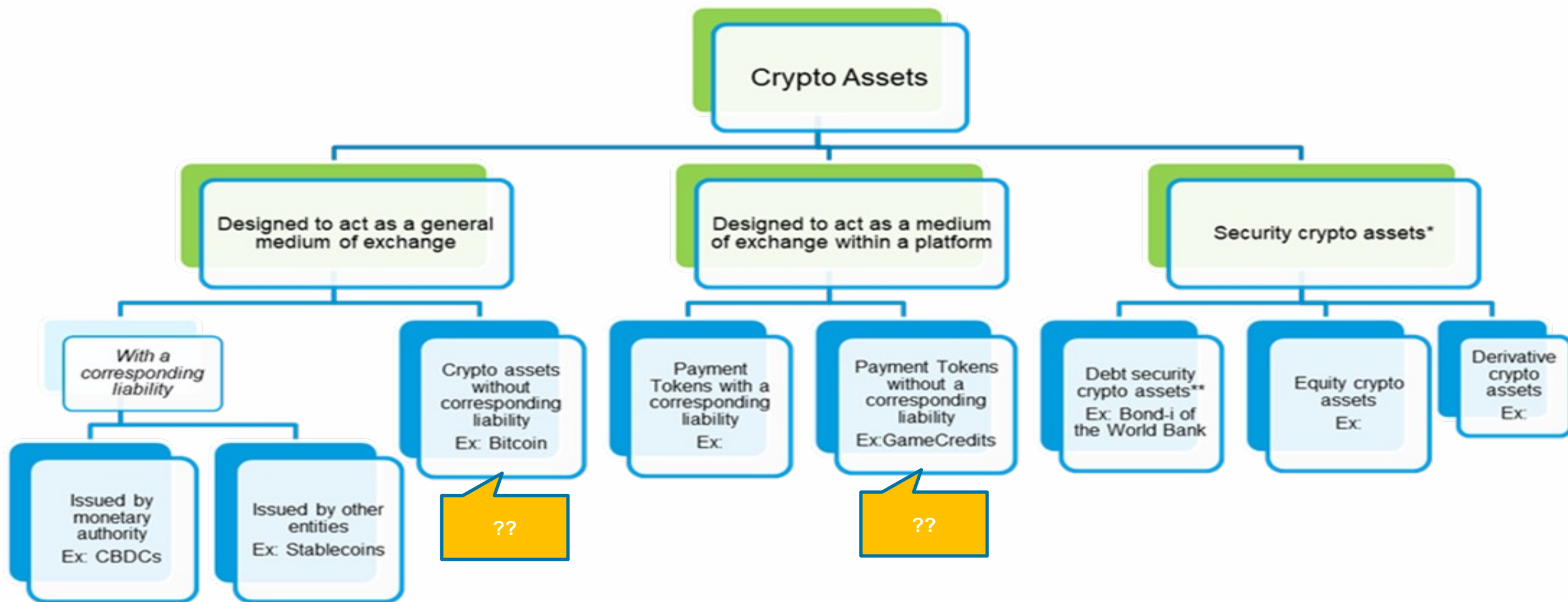
supplementary items in the update of the MSITS and in the new EBOPS revision

Handbook on Measuring Digital Trade

- ❑ **Version 1** published at the end of 2019
- ❑ Covers:
 - A **definition** and **conceptual framework** on measuring digital trade
 - **A reporting template**
 - **Provisional compilation guidance** on
 - Digitally ordered trade
 - Digitally delivered trade (services)
 - Digital Intermediation Platforms (DIPs)
- ❑ It is a 'living document' and contains some areas for future work



BPM6/2008 SNA Update: Recording of crypto assets



Statistical Classification of Crypto Assets

- All crypto assets meet the **asset boundary**
- All crypto assets with a corresponding liability are **financial assets**
- **Classification**
 - ▶ Designed to act as **general medium of exchange**
 - ◆ Issued by a monetary authority = **Currency**
 - ◆ Issued by other entities = **New financial instrument** (separate from currency and deposits)
 - ▶ Designed to act **as a medium of exchange within a platform or network**
 - ◆ With a corresponding liability = **Debt securities**
 - ▶ **Security tokens**
 - ◆ Debt security crypto assets = **Debt securities**
 - ◆ Equity crypto assets = **Equity**
 - ◆ Derivative crypto assets = **Financial derivatives**

Crypto Assets Without Corresponding Liability

- **Current guidance** (2018 BOPCOM Clarification Note)
 - ▶ **Produced nonfinancial asset—valuables** (Option I of FITT Guidance Note F.18)
 - ▶ I.e., **nonfinancial assets** and **outcome of the production process** undertaken by miners in the case of mineable coins and creators/issuers for non-mineable coins; the expenditure counterpart is capital formation by the producers.
 - ◆ Consistent with counterpart liability criterion as applicable to all financial assets except monetary gold
 - ◆ Consistent with current international accounting standards
 - ◆ Consistent with the view that CAWLM appear for the first time in the wallet of miners
 - ◆ Consistent with the view that the initial owners of the coins may not be recognized as consuming the validation services provided by miners
 - ◆ Requires a revision in one of the categories of produced nonfinancial assets to include this specific type of digital valuables
 - ◆ Adds to capital formation
 - ◆ Leads to a transaction akin to barter trade in case used as medium of exchange (not yet the case)

Ongoing Discussions in the context of the update of the *2008 SNA* and *BPM6*

- Still ongoing discussion on **crypto assets without a corresponding liability**, two types:
 - ▶ Designed to act **as general medium of exchange** (CAWLM)
 - ▶ Designed to act as **medium of exchange within a platform or network** (CAWLNP)
- Main points of discussion:
 - ▶ Are they **financial or nonfinancial assets**?
 - ▶ How to account for their creation—**produced or nonproduced**?

BPM6/2008 SNA Update: Impact of Fintech on Macroeconomic Statistics

- ✓ Allocate fintech companies within the existing sectoral breakdown
- ✓ Countries with significant fintech activities could consider introducing an “of which” category from an institutional perspective (i.e., which institutions may be considered as fintech companies)
- ✓ Financial instruments and services provided by fintech should be classified in the existing categories of the macroeconomic statistics without introducing new financial instruments or services categories
- ✓ Compilation guides for the next edition of BPM and SNA should address compilation issues related to fintech. Compilation guides can also use the recommendations of other GNs (e.g., the GNs by the DZTT on digital products/services) to provide guidance to compilers

Thank You!

