

New Topics of National Accounts Research in the Exploration of Metaverse

School of Statistics, Beijing Normal University

Song Xuguang

September 6th, 2022



1. Exploration of the Metaverse

It refers to a digital space created by the combination of human perception technology and digital Internet, where people are allowed to be immersed both mentally and physically in a virtual reality situation.

Meta: Transcending, Metaphysics

Snow Crash published in 1992

Roblox floated on the stock market in March, 2021

Facebook renamed Meta in July, 2021

XIRANG released by Baidu in December, 2021

The 3rd Generation Internet, Ultimate Digital Media, Future Lifestyle



1. Exploration of the Metaverse

The current status of Metaverse research

Metaverse and Games, Movies

Metaverse and Online Learning

Metaverse and Sociology

Metaverse and E-commerce

The Metaverse and Libraries, Architecture, Design...



1. Exploration of the Metaverse

Metaverse and National Accounts

SNA measures the complex economic activities , as well as the interactions between different economic agents and different groups of economic agents in markets or elsewhere.

Serving for economic analysis, decision-making and policy-making.

Comprehensiveness, Consistency and Integrity.

Issues arising in the new economic environment.

Issues concerning extensive needs of users.



2. Revision of the System of National Accounts

SNA2008

Assets, Globalization, Finance, General Government and Public Sector, Informal Economy

There are still 34 non-consensus issues to be studied.

The revision of the SNA2008 was officially proposed in March 2020

Digitization Issues 5

Welfare and Sustainability Issues 19

Globalization Issues 9

Communication-related Issues 5

Financial Issues 9



2. Revision of the System of National Accounts

SNA2008

Assets, Globalization, Finance, General Government and Public Sector, Informal Economy

There are still 34 non-consensus issues to be studied.

The revision of the SNA2008 was officially proposed in March 2020

Digitization Issues 5 → 10

Welfare and Sustainability Issues 19 → 14

Globalization Issues 9

Communication-related Issues 5 → 4

Financial Issues 9 → 17

2. Revision of the System of National Accounts

Guidance Notes		Initial draft	Consultation	Endorsed
Digitalization (DZTT)				
1.	DZ.1 Price and Volume Measurement of Goods and Services Affected by Digitalisation			ENG
2.	DZ.2 Crypto assets (Combined with F.18)			
3.	DZ.3 Treatment of "Free" Digital Products in the "Core" National Accounts	ENG	ENG	
4.	DZ.4 Recording and Valuing "Free" Products in an SNA Satellite Account	ENG	ENG	
5.	DZ.5 Increasing the Visibility of Digitalisation in Economic Statistics Through the Development of Digital Supply-Use Tables	ENG	ENG RUS	ENG
6.	DZ.6 Recording of Data in the National Accounts	ENG	ENG	
7.	DZ.7 Improving the visibility of Artificial Intelligence in the national accounts	ENG	ENG	
8.	DZ.8 Cloud computing	ENG		
9.	DZ.9 Incorporating Digital Intermediation Platforms into the System of National Accounts	ENG	ENG	
10.	DZ.10 Non-fungible tokens (NFTs)			



3. New Topics of National Accounts Research

Units and Sectors

Digital Identity Authentication, Intelligent Digital Human, Parallel World

Digital Twin, Digit Mapping, Digital Mirror

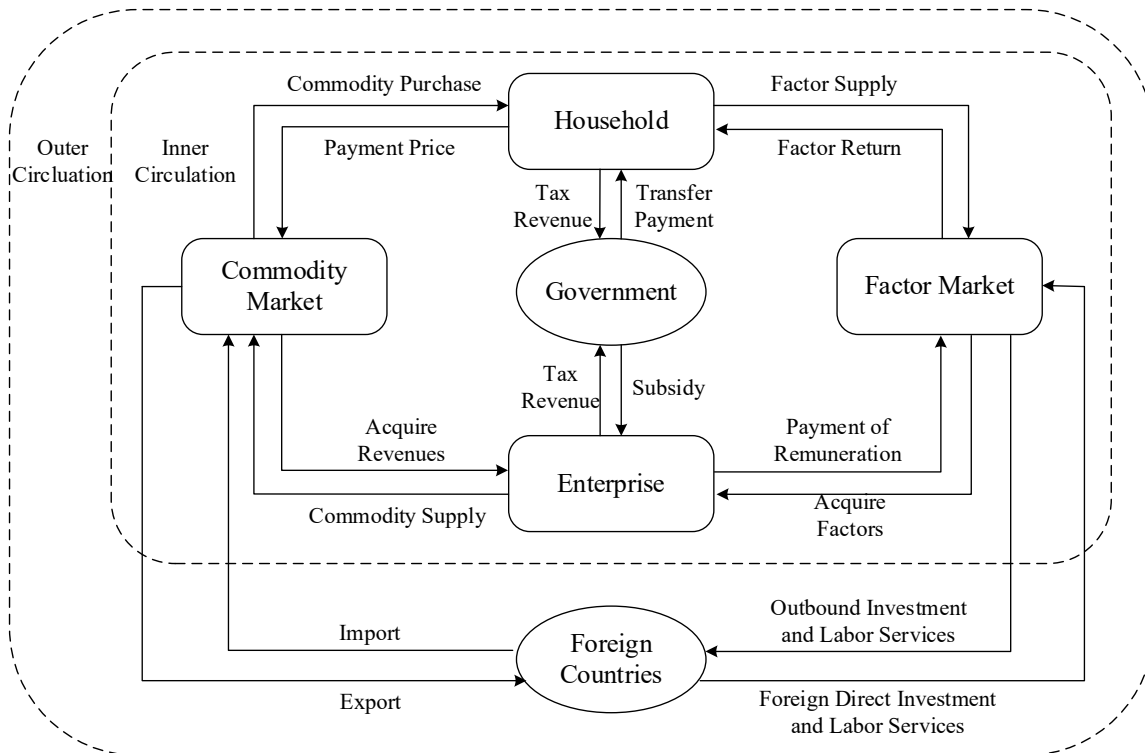
New Institutional Units and Sectors

Resident Units and Non-resident Units

Define the Overall Economy

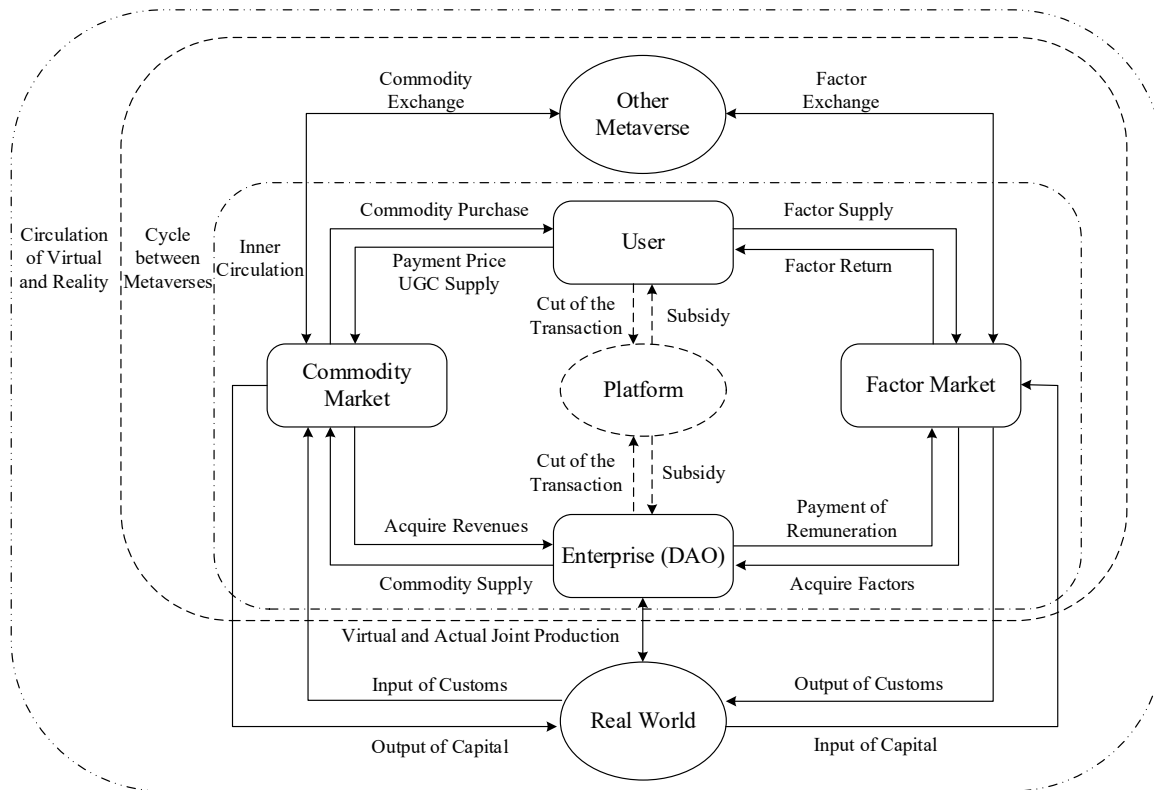
3. New Topics of National Accounts Research

Units and Sectors



3. New Topics of National Accounts Research

Units and Sectors





3. New Topics of National Accounts Research

Transaction and other Flows

Production, Consumption, Saving, Investment

Labor Supply or Capital Supply

Gross Metaverse Product

Virtual Goods: Functionality, Hedonic, Sociality

Production and Supply: UGC, NFT

Significant impact on digital economic accounting



3. New Topics of National Accounts Research

Data Assets

Data Production Factors

SNA2008: Database and Data Software

Produced Assets or Non-produced Assets: Single Data, Aggregated Data,

Digital Assets

Data Asset Accounting: Accounting Subject, Valuation



3. New Topics of National Accounts Research

Product and Producer Unit

Goods and Services

Market Goods and Services, Final used Goods and Services, Nonmarket Goods and Services

Digital Economy Industry

Digital industrialization refers to the provision of digital technologies, goods and services, infrastructure and solutions for the development of industrial digitization, as well as various economic activities that are completely dependent on digital technologies and data elements.

Industrial digitization emphasizes the application of digital technology and information data in traditional industries, mainly involving the impact of digital technology development on other traditional industries.



3. New Topics of National Accounts Research

Product and Production Unit

Digital Industrialization: Computer Communication and other Electronic Equipment Manufacturing, Telecommunications, Radio, Television and Satellite Transmission Services, Internet and Related Services, Software and Information Technology Services, etc.

Industrial Digitization: It mainly includes industries with higher digital efficiency, such as Smart Agriculture, Smart Manufacturing, Smart Transportation, Smart Logistics, Digital Finance, Digital Commerce, Digital Society and Digital Government.

The Fourth Industry



3. New Topics of National Accounts Research

Accounting Rules

Blockchain

Decentralization

Data Collection

Parallel Accounting

Expanded to Welfare Accounting and Time Use Accounting