

High Level Seminar on The Digital Economy: A Policy and Statistical Perspective

**Beijing, People's Republic of China
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Concept Note

In recent years, macroeconomic, trade and firm-based analyses have become increasingly challenged due to the transformative impacts of digital technologies on economic activity. This new phenomenon is often referred to as the digital economy. The innovations through digital technology have changed the way products are produced, consumed and traded; jobs and income are generated; and investments are financed. A sound statistical measurement of the transformative impact of the digital economy can help in understanding the dynamics and the structural shifts in the economy and ultimately the impact of the digital economy on the domestic and global economic activity, the use of the environment and the quality of life of individuals. These insights should allow for improved policy and decision making for sustainable development by government and firms in advancing and distributing the benefits the digital technologies and seizing their opportunities while reducing their risks on the economy, society and environment.

The purpose of the high-level seminar is a) to raise awareness about the transformative impacts of digital technologies across our economies, societies and environment, b) to identify policy, research and information gaps as well as ways to improve interdisciplinary actions on the measurement of digital economy, and c) to present concrete proposals to strengthen cooperation for these actions in an inclusive manner.

It is expected that the consultation process through the high-level seminar will contribute to stimulating discussions between various stakeholder groups in the public and private sector on how they can work together to maximize the cooperation for mutually agreed priorities for research in statistics and policy needs.

The agenda for this seminar is organized around 5 thematic areas as follows:

1. The role of digital economy in sustainable economic development

The digital economy is transforming the nature of markets in terms of how products are produced, ordered and delivered domestically and internationally. Along with the shifts in production, trade and financing arrangements through the introduction of digital technology, the nature of digitally enabled jobs is changing the employment relationship between workers and businesses and create new opportunities for self-employment. It is also boosting growth and productivity by exposing companies to new ideas, technologies, management and business models, and new channels of market access. Firms will continue to adopt the latest digital technologies such as artificial intelligence for the production of even more advanced products and processes that will dominate our daily lives.

For digital technologies to continue to advance economic development, however, appropriate policies and regulatory frameworks must be put in place at national, regional and global level to remove the obstacles preventing segments of the economy and society, in both developed and developing countries from fully engaging in the digital economy. These policies should ensure an inclusive distribution of the economic, social and environmental benefits of the digital economy, while minimizing their risks. In particular, policy makers should be supported by internationally agreed measurement frameworks of the digital economy to monitor how the well-being of population groups and the participation of small and medium enterprises is affected and which policies can be put in place to reach a more equitable and inclusive distribution of growth, income, consumption, investment and jobs.

This session will feature two keynote addresses that will offer insights on the multiple impacts of the digital economy on economic activity, well-being and the environment. Moreover, the key notes will consider the emerging regulatory and monitoring frameworks for the digital economy related to such aspects as the access, protection and use of data, intellectual property, jobs, consumers and digitally enabled technologies and products. The keynote addresses will be followed by a high-level panel discussion on how the measurement of and policy frameworks for the digital economy can be leveraged to increase its benefits and reduce its risks both domestically and internationally.

2. Definition and scope of the digital economy

The digital economy is growing fast, in developed and developing countries alike. Yet, a definition of the digital economy has not been internationally agreed and, thus, internationally comparable measurements of its contribution to levels and growth of income, consumption, trade, investment, jobs and well-being are not available as yet. Still good progress has been made in defining and measuring the digital economy by making the details in the industry and product classifications explicit in terms capital goods and related services components of the digital-enabling infrastructure, the digitally ordered, delivered and platform enabled transactions of goods and services (e-commerce) and content that people create, access, view and store (digital media).

At the same time research is undertaken to measure new economic phenomena produced by the digital economy such as free digital products. These new products are produced by volunteers, consumers or platforms, which may be funded by revenues from advertisement and the use of collected user data. These free digital products do increase household welfare but may not be adequately measured in current macroeconomic frameworks such as the national accounts. Thus, there is a need to either value these products or develop complementary indicators of welfare for these products which are outside the production and asset boundary of the national accounts. These indicators could address issues such as the impact of digitalization on the welfare of different segments of the population, and on the use of time by households.

This session will feature presentations by countries and international organizations on the emerging definition and scope of the digital economy.

3. Current international statistical initiatives in measuring the digital economy

The rising importance of the digital economy has inevitably and rightfully raised the need for international statistical recommendations for newly emerging digitally enabled (free) products and transactions in the macroeconomic frameworks and in related industry and product classifications to allow for the calculation of internationally comparable estimates of the size of the digital economy in production, jobs, income, trade and investment.

The measurement of the digital economy must take place in nominal and volume terms. Appropriate price indexes should be developed to account for the quality dimension of the digital or digitally enabled services and thus to ensure the appropriate measure of welfare. These price measures extend to new digital products (smart phones) as well as digitally enabled products (e.g. transport services, short term rentals) and online services that have eliminated household expenditures (e.g. after sale services, banking services).

With the emergence of free digital products, the increase in household welfare from these free products may not be adequately measured in current macroeconomic frameworks such as the national accounts. Thus, there is a need to either value these products or develop complementary indicators of welfare for these products which are outside the production and asset boundary of the national accounts.

This session will feature presentations on emerging measures of the size of the digital economy in the national accounts based on the national practices on the compilation of satellite accounts for the digital economy. Also, the possible implications of the extension of the SNA production and asset boundaries for the measurement of the digital economy on GDP and other macroeconomic aggregates will be highlighted. Moreover, complementary welfare indicators will be presented, which measure the increase in household welfare from digital products outside the product and asset boundary of the national accounts.

4. Measuring price changes of digital products

Getting a proper measurement of the size of the digital economy in nominal terms is an important undertaking as it will allow for a proper estimate of its contribution to the overall economy. However, it is also equally important to split the change in the nominal size of the digital economy into its price and volume components for the following reasons.

One, capturing the welfare in GDP from free digital products is primarily a price and volume index problem, not as a production boundary problem. The adjustment of prices for quality change is a key step to measure welfare. Two, another important challenge is how to capture the price changes arising from the shift to the digital economy to produce better quality GDP volume measures. For example, to the extent that Airbnb rooms are of higher quality than comparable hotel rooms, the use of a price index that only captures hotel rooms will fail to capture the switch to cheaper Airbnb rooms and underestimate the total volume of accommodation services.

This session will feature presentations on the development of price indices to measure changes in the prices of digital products, the issues and challenges involved and how to overcome these challenges.

5. Data sources for measuring the digital economy

The task of developing a sound and robust statistical framework to obtain internationally comparable measures of the size of the digital economy will not be complete without the availability of reliable and robust source data to facilitate its measurement. Traditional sources of data may have to be amended to address the changing nature of production and financing arrangements, employer-employee employment arrangements and the newly emerging self-employed jobs in e-commerce and digital media. Besides these traditional data sources such as administrative data and census and survey data, new (big) data sources should be considered to delineate the relationships between the dominant industries in the digital economy, their products and locations as well as determining more real time data. In addition, the fact that these data sources are available does not necessarily mean data compilers will have easy access to them or that they are available in a format which can be easily transformed for the calculation of the size of the digital economy or welfare indicators.

This session will feature presentations on the available data sources to measure the digital economy, how to transform the source data to measure the digital economy and the welfare indicators, the issues and challenges involved in accessing the data and how to overcome these challenges.