

How does the digital economy promote the development of the dual circulation pattern? -An analysis based on the input-output table of the digital economy.

Topic: Input-Output Analysis: Trade and Global Value Chains Policies - VI

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This paper provides empirical evidence from China and uses China 's input-output table data to study the impact of digital economy development on the dual circulation (economic domestic circulation and international circulation) and its transmission mechanism. The research contents of this paper include: Firstly, this paper compiles non-competitive input-output tables considering the digital economy sector in China from 2007 to 2020, and on this basis, calculates the total amount of digital economy, analyzes the dependence relationship between traditional economy and digital economy, and measures the contribution level of digital economy to the whole economy. Secondly, based on the perspective of supply and demand, the matrix analysis method is used to decompose GDP into domestic and international circulation, and the measurement index of domestic and international circulation participation is constructed. Thirdly, through the analysis of industry heterogeneity, the impact of digital economy on domestic and international economic circulation is studied. Fourthly, based on the SDA model, the driving factors are comprehensively analyzed. The results show that in terms of quantitative relationship, China 's position as the main body of the domestic economic circulation is basically established. The contribution rate of domestic economic circulation to GDP increased from 78.95 % in 2007 to 88.91 % in 2020. Consumption and initial investment are the primary driving forces to drive or promote China 's economic growth. The average annual growth rate of GDP created by the digital economy sector is 10.31 %, which is higher than the GDP growth rate in the same period, and has become an important driving force for economic growth ; the participation of the digital economy sector in the domestic and international circulations is similar to that of traditional industries, but the dependence on the international circulation is higher than that of traditional industries, more dependent on exports and intermediate inputs of imports, and the contribution rate to the GDP of the international economic circulation is always at a high level. From the decomposition results, the international economic circulation is mainly influenced by the effect of change in the coefficient of intermediate inputs of imports, the effect of change in the production structure and the effect of change in the coefficient of value added. This paper has the following innovations: firstly, from a theoretical perspective, this paper uses the input-output analysis method to comprehensively examine the development level of the digital economy and its impact on the economic circulation, and provides a complete framework for studying the quantitative relationship between the digital economy and the domestic and international economic circulations. Secondly, this paper constructs the measurement index of domestic and international economic circulation, and provides a complete quantitative analysis. Its connotation is consistent with the structural analysis of domestic and international economic circulation at the theoretical level, and achieves the organic unity of theory and practice. Thirdly, this paper manually compiled China 's non-competitive input-output table of digital economy from 2002 to 2020, and the selected data are relatively new, which has important research value for the current measurement of China 's domestic and international economic circulation level. Finally, this paper analyzes the mechanism and driving factors of how the digital economy affects the domestic and international economic circulation, and supplements the shortcomings of the existing literature.