

GOVERNANCE AND DEVELOPMENT OF GLOBAL DIGITAL PLATFORMS IN THE WAVE OF THE DIGITAL AGE DIFFERENCES BETWEEN THE UNITED STATES AND CHINA

Li Rong

PhD student, Belarusian State University, Minsk, Belarus, econ.lirong@qq.com

Supervisor: C. Gospodarik

*PhD in economics, head of the department of analytical economics and econometrics,
Belarusian State University, Minsk, Belarus, Gospodarik@bsu.by*

Platform economy exists as a special form of DE, which is characterized by disruptive innovation, multilateral market, cross-border competition and the ability of online and physical integration. Global digital platforms are mainly concentrated in the largest developed economy, the United States, the largest developing economy, China and other regions: basically also dominated by GAFA (google, amazon, Facebook, Apple). 2020 COVID-19 become an important factor to promote the further development of the digital economy (platform economy). In the era of digital economy, China and the United States, as the leaders of digital economy, continue to refresh the scale and development trend of digital economy. China and the United States, as the world's two largest economies, both have huge platform economies. Although they are similar to some extent, there are some significant differences between them. They have different understandings and categorizations of their platform economies. Differences in governance and regulatory models have led to different business models and regulatory environments in their countries, with implications for the future of the global platform economy.

Technology is the key to human progress. Looking at the history of human economic growth for more than 200 years, from the steam engine to the invention of electricity to information technology today, every major general technological change has brought about the re-optimization of resource allocation. Looking at the history of human economic growth for more than 200 years, from the steam engine to the invention of electricity to information technology today, every major general technological change has brought about the re-optimization of resource allocation and continued economic prosperity. The digital economy is also having a profound impact on the economic and social actors, with the result that the digital economy has become an important part of the economy.

Keywords: platform economy; digital transformation; digital economy; digital governance; competition.

УПРАВЛЕНИЕ И РАЗВИТИЕ ГЛОБАЛЬНЫХ ЦИФРОВЫХ ПЛАТФОРМ НА ВОЛНЕ ЦИФРОВОЙ ВОЗРАСТНОЙ РАЗНИЦЫ МЕЖДУ США И КИТАЕМ

Li Rong

аспирант, Белорусский государственный университет, г. Минск, Беларусь, econ.lirong@qq.com

Научный руководитель: Е. Г. Господарик

*кандидат экономических наук, заведующий кафедрой аналитической экономики и эконометрики,
Белорусский государственный университет, г. Минск, Беларусь, Gospodarik@bsu.by*

Платформенная экономика существует как особая форма развития, которая характеризуется прорывными инновациями, многосторонним рынком, трансграничной конкуренцией и возможностью онлайн- и физической интеграции. Глобальные цифровые платформы в основном сосредоточены в

крупнейшей развитой экономике – Соединенных Штатах, крупнейшей развивающейся экономике – Китае и других регионах: в основном также доминируют GAFA (Google, Amazon, Facebook, Apple). В 2020 году COVID-19 станет важным фактором, способствующим дальнейшему развитию цифровой экономики (платформенной экономики). В эпоху цифровой экономики Китай и Соединенные Штаты, как лидеры цифровой экономики, продолжают обновлять масштабы и тенденции развития цифровой экономики. Китай и Соединенные Штаты, как две крупнейшие экономики мира, обладают мощной платформенной экономикой. Несмотря на то, что они в некоторой степени похожи, между ними есть некоторые существенные различия. Они по-разному понимают и классифицируют экономику своих платформ. Различия в моделях управления и регулирования привели к различным бизнес-моделям и нормативной среде в их странах, что имеет последствия для будущего глобальной платформенной экономики.

Технологии – это ключ к прогрессу человечества. Если взглянуть на историю экономического роста человечества за более чем 200 лет, от парового двигателя до изобретения электричества и современных информационных технологий, то можно увидеть, что каждое крупное технологическое изменение приводило к оптимизации распределения ресурсов. Если взглянуть на историю экономического роста человечества за более чем 200 лет, начиная с парового двигателя, изобретения электричества и заканчивая современными информационными технологиями, то можно увидеть, что каждое крупное технологическое изменение приводило к переоптимизации распределения ресурсов и сохранению экономического благополучия. Цифровая экономика также оказывает глубокое влияние на экономических и социальных субъектов, в результате чего цифровая экономика стала важной частью экономики.

Ключевые слова: платформенная экономика; цифровая трансформация; цифровая экономика; цифровое правительство; конкуренция.

Platform economy refers to an economic model that digitizes, networks and platformizes production factors and demand through the Internet and information technology.

Digital technology is a huge driving force behind the rapid growth of the platform economy, and in the age of information platforms have become more powerful than ever before in terms of number and scope. Digital technology allows platforms to serve as a medium for bilateral and multilateral markets, closely linking the demand and supply sides.

Digital technology has broken the limitations of geographic space and time, dramatically summarizing the efficiency of combining online and offline and reducing the cost of economic operations. In industries such as software, media portals, payment systems, and the Internet, platforms must be supported by both supply and demand in the marketplace in order to be successful. In the digital economy big data algorithms and the accumulation of large volumes of data allow platforms to reach an unprecedented breadth of scale. Digital platforms can more quickly match high-frequency and diverse demand with unstable and flexible supply.

In the era of digital economy, China and the U.S., as leaders of the digital economy, continue to refresh the scale and development trend of the digital economy. China's National Internet Information Office released the Digital China Development Report (2021) showing that by 2021, the scale of China's digital economy will increase from RMB 27.2 trillion in 2007 to RMB 45.5 trillion, with the total amount ranking second in the world, with a compound annual growth rate of 13.6 %, and its share of GDP increasing from 32.9 % to 39.8 %, becoming one of the main engines driving economic growth. China Information and Communication Technology (CAICT) «Global Digital Economy White Paper (2022)» shows that in terms of the scale of the digital economy, the U.S. digital economy reigns as the world's first in 2021 to reach 15.3 trillion U.S. dollars, and China's scale ranks second at 7.1 trillion U.S. dollars, which is equivalent to half of the United States. And the U.S. digital economy scale in 2021 reached 10.3 % of GDP contribution, digital economy has become the development of the world's top two economies in common.

China and the United States, the world's two largest economies, both have large platform economies. While they are similar to some extent, there are some significant differences between them.

Different distribution of platform economy industries in China and the United States. The digital economy has created a number of new industries while upgrading traditional ones. The digital economy permeates various industries, even though it seems with the digital economy and technology platforms of mining, electricity and heat, water and environment, public utility management, health and social security industries still have rich application scenarios in artificial intelligence, the Internet of Things, and big data. China and the United States, on the other hand, have a different understanding and categorization of the platform economy. Martin Kenney and John Zysman (2015) argue that categorizing platforms by function or business model is complicated by the ambiguity and overlap of platform economy categories. The Center for Global Enterprise, an American think tank, categorizes platforms into four types: transactional, innovative, integrated, and investment, based on the primary mode of their utility, rather than on the particular industries they serve. Ahmad Asadullah and Isam Faik, through a review of the literature, found that most digital platforms are categorized according to business model: the platform's business model; interaction model: according to the mode of interaction between external participants; governance model: according to open or closed governance model; and ownership structure: according to the ownership structure of the digital platform. structure of the digital platform.

According to the Internet Platform Classification Guidelines (Draft) published by China's State Administration for Market Supervision and Administration (SAMSA) in 2021, the vast majority of platform categories are closely related to the personal work and life of the consumer side (C-suite), and Internet platforms are considered to be categorized based on the connectivity attributes and main functions of the platforms. [China categorizes platforms according to their connectivity and main functions into the following six categories: online sales platforms: with transaction functions; life service platforms: with service functions; social entertainment platforms: with entertainment functions; information platforms: with information functions; financial service platforms: with financing functions; and computing application platforms: with computing functions.

According to the connectivity attributes and functions of platforms, China mainly categorizes platforms into platforms with various functions, such as trading, socializing, entertainment, information, financing and computing, based on the connectivity objects and main functions.

Market size and growth rate of platform companies in China and the United States. China's platform economy has expanded rapidly over the past few years, especially in the areas of mobile internet, e-commerce, and social media. This is closely related to China's huge consumer market and smartphone penetration.

The U.S. platform economy is also growing rapidly, but at a slightly slower rate than China's overall. The platform economy in the United States mainly focuses on five categories: social media, browser, search engine, operating system, and mobile vendor. The U.S. platform economy is dominated by tech giants such as Google, Apple, Amazon, Facebook, etc.

Platform enterprises, driven by the digital economy, have realized unprecedented scale effects and user stickiness, and some head enterprises have even turned into platforms of platforms, mastering many other platforms. Data show that in 2020 Tencent has benefited 120 billion dollars by holding stakes in 100 listed companies. The important way of expansion for platform enterprises outside their own business layout is mergers and acquisitions and equity investment.

From the Orbis Global Enterprise Database and Capital IQ database searching for the list of shareholders and shareholding ratio of U.S. head platform enterprises, we can see that compared with the U.S. China's head platform enterprises (especially Tencent and Alibaba) have invested in or held a very large number of consumer Internet brands, which further confirms that these Internet giants are carrying out the whole network of personal users-oriented industry layout. This further confirms that these Internet giants are conducting a network-wide layout of the industry for individual users.

Dominant companies. The leading companies in the platform economy in the United States include Google, Apple, Amazon, and Facebook. These companies have high influence and market share globally. China's platform economy dominant enterprises mainly include Alibaba, Tencent, ByteDance, Meituan, and so on. These companies have high market shares in their respective fields

and have formed monopolies or oligopolies to some extent. The differences in payment methods between China and the United States have had a significant impact on the platform economies of their respective countries. Mobile payments have played a key role in the growth of China's platform economy, while the U.S. has been slower to adopt these technologies. This has led to different business models and regulatory environments in each country, with implications for the future of the global platform economy.

There are some differences in the distribution of the platform economy in China and the United States in terms of industries (table).

Are the main distribution characteristics of the platform economy in China and the United States in various industries

China	E-commerce platform	Alibaba, Jingdong, Pinduoduo	E-commerce platform	Amazon, eBay, Walmart	USA
	social media	WeChat, Weibo, TikTok	social media	Facebook, Twitter, Instagram, snapchat.	
	online payment	Alipay and WeChat Pay	online payment	Paypal, Applepay, Amazon Pay	
	shared travel	DDT, Meituan Taxi	shared travel	Uber, Lyft	
	online education	VIPKID, Good Future, Monkey Assisted Guidance	online education	Coursera, Udacity, Khan Academy	
	online entertainment	Tencent Games, Huya Live, kuaishou	online entertainment	Netflix, Twitch, YouTube, hulu, amazon prime	
	Internet finance	Lufax, Ant Financial Services	Internet finance	Robinhood, SoFi, Square	
	takeaway payment	Meituan Takeout, Ele	takeaway payment	GrubHub, DoorDash, Uber Eats	
	Hotel and travel Industry	Trip, Fliggy	Hotel and travel Industry	Booking.com, Expedia, Airbnb	

The industrial composition of the platform economy is very broad, with the continuous development of science and technology and the continuous expansion of application scenarios, the platform economy individual and national digital life has a significant impact. China and the United States in the management of digital platforms have certain differences but also have many similarities. With the globalization of technological development of the Internet is also inseparable from the environment created by the government and strong support.

Cross-border integration and ecosystems of Chinese and American platforms

Enterprises in China's platform economy are more inclined to cross-border integration and the creation of comprehensive ecosystems, presenting the phenomenon of industry-wide coverage, providing users with a full range of services, and thus seizing consumer surplus value from users. For example, Alibaba is involved in finance, logistics and cloud computing, while Tencent is involved in gaming, social networking and finance. The U.S. head platforms each dominate different fields and maintain stability and dynamic evolution. Although the U.S. platform enterprises also have the trend of cross-border integration, they are relatively more focused on the development of their own core business. For example, Google and China's head search engine platform, compared to the main focus on search engine, advertising and cloud computing and other businesses and no local life service business expansion. Amazon is to focus on e-commerce and cloud services, not like Alibaba to expand the whole field, and did not launch a financial tool like Alipay. The reason may be that the United States enacted the antitrust Sherman Act in 1890, followed by the Clayton Act and the Federal Trade Commission Act in 1914. These three laws constitute the basic law of antitrust in the United States.

China only enacted the Anti-Monopoly Law in 2007⁸, and the Chinese government has imposed strict regulations on the platform economy, including controls on data security, anti-monopoly, and financial risks. In recent years, the Chinese government has cracked down on some platform giants to prevent overly concentrated market power from negatively impacting the country's economy and society.

The U.S. government's regulation of the platform economy is relatively lax, and while there have been antitrust investigations and lawsuits against tech giants in recent years, the overall level of government intervention has been low.

The Impact of the U.S.-China Platform Economy on Labor Markets and Income Distribution

With the development of the digital economy, innovations in the platform economy have created a large number of employment opportunities. This has led to a dramatic change in the nature of work, with the share of new employment relying on platforms for "odd-job" work rising among workers year after year, triggering structural changes in the labour market.

The nature of the work and hours of «casual» workers do not match China's current "labor dichotomy," resulting in casual workers often receiving insufficient social security. Traditional jobs are being phased out, and the income gap between urban and rural areas and between regions is widening. Most studies show that the digital economy has more positive than substitutive effects on employment. While the development of digital technologies replaces the comparative advantage of human beings in doing programmed work, it greatly expands the comparative advantage of human variability and creativity in problem solving and may even increase employment through innovation.

A comparison of the effects of trade and technology on employment in the U.S. labor market between 1980 and 2007 reveals that manufacturing and non-manufacturing sectors of the labor market are susceptible to occupational polarization by computerization, but that there has been no net decline in employment. (D. H Autor et al., 2015).

Also by analyzing labor demand data for 27 European countries over the period 1999–2010, the results show that routine substitution technological change (RRTC) is found to have a positive impact on labor demand, with the expansion of aggregate demand and associated spillovers from technology having overcompensated for the substitution effect. (T. Gregory et al., 2016). An analysis of 15 years of panel data from 15 OECD countries through (GMM) econometric models reveals that technological progress is a driver of wage and employment polarization, with robotics having a mildly positive effect on employment. (L. Hoedemakers, 2017).

References

1. Cyberspace administration of China [Electronic Resource] // Digital China Development Report. 2021. URL: http://www.cac.gov.cn/2022-08/02/c_1661066515613920.htm.
2. CAICT [Electronic Resource] // White Paper on Global Digital Economy. 2022. URL: http://www.caict.ac.cn/english/research/whitepapers/202303/t20230316_416850.html.
3. U. S. Bureau of Economic Analysis [Electronic Resource]. URL: <https://www.bea.gov/data/special-topics/digital-economy>.
4. Kenney M., Zysman J. Choosing a future in the platform economy: the implications and consequences of digital platforms : in Kauffman Foundation New Entrepreneurial Growth Conference. 2015. Vol. 156160, No. 18. P. 1689–1699).
5. Peter C. Evans and Annabelle Gawer [Electronic Resource] // The Rise of the Platform Enterprise (PDF). The Center for Global Enterprise. Retrieved 15 March 2018. URL: https://www.thecge.net/app/uploads/2016/01/PDF-WEB-Platform-Survey_01_12.pdf.
6. Asadullah A., Faik I., Kankanhalli A. Digital Platforms: a Review and Future Directions. pacis, 2018. 248 p.
7. State Administration for Market Regulation [Electronic Resource] // Guidelines for Categorizing and Rating Internet Platforms (Draft for Comment). URL: https://www.samr.gov.cn/hd/zjdc/202110/t20211027_336137.html.
8. European Commission [Electronic Resource] // JointResearch Centre. URL: <https://iri.jrc.ec.europa.eu/sites/default/files/contenttype/scoreboard/2022-12>.

9. Deloitte, Global Artificial Intelligence Industry Whitepaper [Electronic Resource]. URL: <https://www2.deloitte.com/cn/en/pages/technology-media-and-telecommunications/articles/global-ai-development-white-paper.html>.
10. statista [Electronic Resource] // Annual spending on cloud IT infrastructure worldwide. URL: <https://www.statista.com/statistics/503686/worldwide-cloud-it-infrastructure-market-spending/>.
11. Synergy Research Group [Electronic Resource]. URL: <https://www.srgresearch.com/articles/q1-cloud-spending-grows-by-over-10-billion-from-2022-the-big-three-account-for-65-of-the-total>.
12. Autor D. H., Dorn D., Hanson G. H. Untangling trade and technology: Evidence from local labor markets [Electronic Resource] // The Economic Journal. 2015. № 125(584)ю P. 621–646.
13. Gregory T., Salomons A., Zierahn U. (2016). Racing with or against the machine? Evidence from Europe. evidence from Europe (July 15, 2016). ZEW-Centre for European Economic Research Discussion Paper, (16-053).
14. Hoedemakers L. The changing nature of employment: how technological progress and robotics shape the future of work. 2017.