

# Outward Foreign Direct Investment and Global Value Chain

Yao Yao<sup>1</sup> and Yizhen Zhou<sup>1,\*</sup>

<sup>1</sup>Hangzhou Institute of Service Engineering, Hangzhou Normal University, Hangzhou, Zhejiang Province, China

\*corresponding author dreamerzhou@hotmail.com

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**Abstract:** This paper analyzed the interaction between outward foreign direct investment and participation in global value chain. The mechanism of how outward foreign direct investment could influence global value chain is analyzed, from different types of investment and different channels. Reverse technology spill over and marginal industry transfer effects are examined, productivity improvement and innovation is illustrated. The interaction of outward foreign direct investment, global value chain and structural reform is discussed, emphasized on technology advancement and innovation. The impact of the Road and Belt initiative on the position of China in the global value chain is also studied, from the perspective of economic openness and regional integration, policy coordination and investment barriers, with case studies to elaborate industry upgrading, strategic resource and market share derived from overseas mergers and acquisitions. Integration between independent innovation, value chain and introduction of technology could be the focus point in policy guidance.

## 1. Introduction

Outward foreign direct investment from China has been developing rapidly in the past two decades, with the amount increased, industries diversified and destinations dispersed. However, outward foreign direct investment experienced a downturn due to adverse macroeconomic conditions and investment barriers in developed countries. The Road and Belt initiative lead to new opportunity in international market for Chinese enterprises. The position of China in global value chain stays at the middle of the smile curve, and needs improvement. The participation of Chinese enterprises in global value chain is more likely in low end, low profit manufacturing and assembly. Reverse technology spill over, market expansion and strategic resource from outward foreign direct investment could help elevate the position of China in global value chain. This paper discussed the interaction between outward foreign direct investment and global value chain. The second part analyzed the mechanism in the interaction of outward foreign direct investment and global value chain, illustrated how different types of outward foreign direct investment facilitated elevation in global value chain through different channels. The third part studied the interaction amongst outward foreign direct investment, global value chain and structural reform, emphasized on technology advancement and innovation. The fourth part elaborated the impact of the Road and Belt initiative on the position of China and host countries in global value chain. The last part concludes and provided some insight in future development.

## 2. The Mechanism of Outward Foreign Direct Investment and Global Value Chain

### 2.1. The Interaction between Outward Foreign Direct Investment and Global Value Chain

Outward foreign direct investment by developing countries has been increasing rapidly in the recent years. The amount of outbound direct investment of developed countries had been over the developed countries since the year of 2017, which is the result of the slowdown of investment from developed countries and the thriving investment from developing countries. The position of emerging economies in global value chain is relatively disadvantaged. The global value chain could

be depicted by the so called smile curve. The developed countries take up the higher profitable part of global value chain, while the developing countries participate in lower value added part. The upstream innovation and design are more likely dominated by developed countries with the core technology and research capability. The downstream distribution and marketing is also occupied by developed countries. The manufacturing and assembly, which usually have low profit margin, are participated by developing countries.

## **2.2. The Different Channels of the Influence**

Outward foreign direct investment could facilitate the elevation the position of investment countries in global value chain through various channels. From the innovation perspective, outward foreign direct investment could facilitate technology development in home countries, so as to achieve elevation in global value chain. Outward foreign direct investment strengthened technology development in home countries through increased R&D activities and development of human resource. R&D increased significantly in information and technology industry in the process of globalization of local corporations, such as Huawei Technology Ltd. From the productivity perspective, the total factor productivity in home countries improved after outward foreign direct investment. The productivity in home countries is improved in macroeconomic level, in industry level and in individual firms, which is facilitated by outward foreign direct investment in the long run across different industries. From the perspective of industrial reform and upgrading, outward foreign direct investment is an important driven factor in industrial upgrading, through production internationalization, transfer of marginal industry and optimization of industrial structure.

## **2.3. The Role of Different Types of Outward Foreign Direct Investment**

Different types of outward foreign direct investment has an impact in the position of home countries in global value chain in different ways. The horizontal upgrading could be achieved by cost seeking outward foreign direct investment, the result of market expansion, lower cost and the benefit of economic scale. The vertical development could be achieved by technology seeking outward foreign direct investment, which is the result of technology innovation induced by reverse technology spill over. The great leap forward upgrading could be achieved by comprehensive impact of outward foreign direct investment in the management skills, the structural reform, the upgrading in business process, the integration of resources with knowledge capital acquired from host countries. The entry mode of outward foreign direct investment determines its impact on global value chain. Generally, the merger and acquisition in developed countries as host countries has more significant impact in elevation in global value chain than green field investment. Cross border merger and acquisition by transnational corporations from emerging economies is surging over the past five years. Cross border merger and acquisition could be a relatively convenient channel to acquire advanced technology from target corporations in developed countries.

# **3. Outward Direct Investment, Global Value Chain and Structural Reform**

## **3.1 Technical Progress**

In the era of digital economy, developing countries require advanced technology to achieve sustainable growth and compete internationally. Technological progress could be facilitated by outward foreign direct investment. For example, in the information and technology industry, research centers set up by Huawei Technology Ltd, ZTE Corporation and other Chinese firms promote technology innovation in the industry. In the automobile industry , the acquisition of Volvo by Geely Group promoted innovation and elevation in global value chain, from brand effect, increased research and development, acquired technology and reformed production process. Newly established legislation concerning intellectual property is enforced at the beginning of 2020, which provides legal support for technological progress and diffusion. Technology advancement could achieve by independent research and development, technology import in international trade, absorption of technology in foreign direct investment and reverse technology spill over from

outward foreign direct investment. To activate growth potential of China, and to take up strategic advantage in industry 4.0, participation in high end global value chain is crucial. From the going out policy to the Road and Belt initiative, international production and energy cooperation, the amount of outward foreign direct investment from China has witnessed surging increase in the past two decade. Moreover, the quality of outward foreign direct investment has also improved, especially in the past three years. The difficulty in international investment and various investment barriers promote the transfer from quantity increase to quality improvement. The overseas merger and acquisition by Chinese firms in the year of 2019 concentrated in high tech industry and other sections in high end global value chain. The most invested industry is TMT, technology, media, telecom, which has the highest number and value in overseas merger and acquisition. Investment in medicine and health care, advanced manufacturing and transportation are also ranked in top three.

### **3.2. International Economic Structure**

Imbalance of international trade of China, featured by goods trade surplus and service trade deficit, requires international trade structural reform. The lag between international service trade and merchandise trade could be filled by service trade development, as well as manufacturing related services. Outward foreign direct investment could transfer low value added manufacturing overseas, especially the part of production and assembly which is the least profitable in global value chain. The design and marketing department could remain inside the domestic parent company, not only for higher profit but also strategic development purposes. While the design and innovation part could help home country to maintain the advantage of advanced technology, the marketing and distribution part could help home country to preserve market share in global market. To avoid the so called “low end locking” dilemma which is confronted by many developing countries, cultivate comparative advantage in high tech industry and frontier industry through knowledge capital accumulation is essential for China in the future. Investment in innovation is crucial, which include investment in education, research centres and universities, increase input in R&D, attract expert overseas, import cutting edge technology.

### **3.3. Environmental Factor**

Carbon content is an increasingly important factor in economic policy decision making across the world. Many countries took environmental factor into consideration in international production, trade and investment. The volume of outward foreign direct investment is negatively related to carbon emission, which indicates that outward foreign direct investment could improve environment quality in home countries. The transfer of marginal industry moved polluted production overseas. The technology absorbed through outward foreign direct investment improves production process so as to reduce pollution. For sustainable and healthy economic growth, environmental friendly development is crucial.

### **3.4. The Role of Multinational Corporations**

Multinational corporations played an import role in macroeconomics, especially in international economic activities. As dominant participants in outward foreign direct investment, and as the leaders of technology innovation in the industry, multinational corporations functions as the centre hub for innovation, structural reform and promoter in global value chain. Taken characteristics of Chinese corporations into consideration, large scaled multinational corporations are mostly state owned, and highly centralized. State owned enterprises could benefit from not only economy of scale, but also favourable compete environment in the domestic market, could lead to advantage in sufficient resource and support from authority. However, the motivation for innovation could be insufficient. Research and development centre at firm level as well as industry level could be necessary to act as hub for innovation, which could motivate competition, as well as generate positive externality to benefit the industry, which include enterprises in the private sector and related industries.

#### **4. Global Value Chain and the Belt and Road Initiative**

The belt and road initiative, as a crucial policy strategy of economic openness and international economic activities, inject vitality in international trade, overseas investment, international production and energy cooperation. The international trade and investment significantly increased, as well as other forms of social, economical, political and cultural cooperation and integration. Outward foreign direct investment from China to the countries along the Belt and Road initiative, has not only a positive impact on the economic growth in host countries, but also positive influence for the home country. The position of China in global value chain improved considerably through outward foreign direct investment along the Road and Belt initiative. The elevated global value chain could partly attribute to the marginal industry transfer effect. The lower value-added industry, such as low tech manufacturing, labor intensive industries, could be transferred overseas. The advantage of transferring marginal industry overseas includes benefit from lower cost, and protect environment in the home country, and provide domestic resource for industries with advanced technology and higher value-added products in China. For example, the Chinese industrial parks established in ASEAN countries, transferred manufacture overseas, benefit from lower labor cost, expanded international market, avoided trade barriers into ASEAN market and other export destinations. Energy cooperation with central Asian countries improved efficiency of production. The Road and Belt initiative deepened integration of production and service amongst China and participating countries, improved productivity of China and the host countries, enhanced their international competitiveness as a whole. Steady progress of foreign contracted project along the Road and Belt initiative could help establish a favorable geo-economic environment for economic cooperation and integration in the future. Deepening financial interaction help mitigate foreign exchange risks, facilitate cross border settlement, provides sufficient financial service for investment and trade in non-financial sectors. Policy cooperation, infrastructure connection, financial interaction, trade openness and social and cultural integration could benefit the Chinese firms in the form of global market share, lower cost, innovation and comprehensive competitiveness of the integration amongst countries in the Road and Belt initiative.

Since the strict regulation against Chinese firms in the United States and the European Union, the investment environment for Chinese corporations in developed countries is less than favorable. The announcement of EU regulations on foreign direct investment in the year of 2019 restricted investment in sensitive industries, denied foreign corporations the access to core technology. International Emergency Economic Powers Act announced in 2018 gave investment review authority of the United States more liberty in restriction of Chinese firms, which is a discriminating legislation, lacks of transparency and hinders investment from Chinese firms. The destination of outward foreign direct investment is concentrated in Asia and other emerging market economies. The acquisition of GLP, the largest logistics and real estate enterprise in Asia based in Singapore, reached a high value over one billion US dollars. The financial group from China, led by Vanke Group, participated in the acquisition aimed to expand logistic and real estate territory. The high value target acquisition improved the structure and development in logistics, optimized distribution in the industry, and lead to more investment opportunities for Vanke Group and other Chinese firms. The leap development in new industry such as logistics could be achieved by investment in industrial leading enterprises overseas. Yifan Pharmaceutical Co. Ltd, a corporation based in Zhejiang province, participated in full amount acquisition in several corporations in the medicine industry, include 100% equity acquisition of Dongren Singapore Pte in the year of 2019. CEFC China Energy Company Limited acquired 14.2% equity of Rosneft Oil, a Russian energy company. Acquisition in energy industry along the Road and Belt initiative secures sufficient strategic resource for economic growth of China in the future. Mi Group achieved great success in India in brand recognition and market share, a perfect example of high tech corporation in private sector in China achieve marketing and innovation through market seeking and technology seeking outward foreign direct investment.

#### **5. Conclusions and Policy Implications**

To sum up, this paper discussed the interaction between outward foreign direct investment and global value chain. Firstly, the mechanism of how outward foreign direct investment could influence global value chain is analyzed, different types of outward foreign direct investment facilitated elevation in global value chain through different channels, reverse technology spill over and marginal industry transfer effects are examined, productivity and innovation achieved through outward foreign direct investment is illustrated. Then, the interaction amongst outward foreign direct investment, global value chain and structural reform is examined, emphasized on technology advancement and innovation. The impact of the Road and Belt initiative on the position of China and host countries in global value chain is also studied, from the perspective of economic openness and regional integration, policy coordination and investment barriers, with case studies to elaborate industry upgrading, strategic resource and market share derived from overseas mergers and acquisitions. From policy perspective, integration between innovation, value chain and introduction of technology could enhance the positive effect of outward foreign direct investment on global value chain.

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