

# Annual Meeting of the New Champions 2018

## 2018 新领军者年会

The 4<sup>th</sup> industrial revolution and the innovative society  
第四次工业革命与创新型社会



The Reconstruction of Global Value Chain and  
the Choice of Multilateral Cooperation Paths

## 全球价值链重构与 多边合作方式选择

Annual Meeting of the New Champions 2018

2018 新领军者年会

The Reconstruction of Global Value Chain and the  
Choice of Multilateral Cooperation Paths

全球价值链重构与多边合作方式选择

# The Reconstruction of Global Value Chain and the Choice of Multilateral Cooperation Paths

Li Jizhen

Tsinghua University

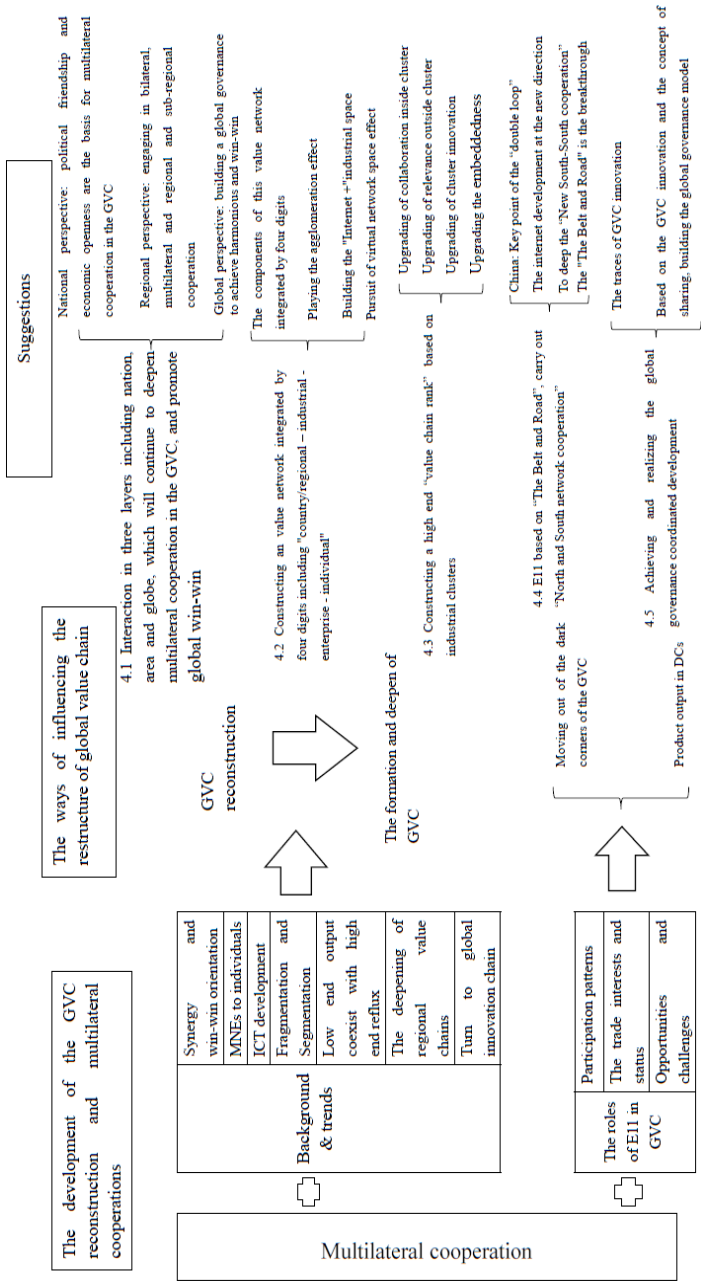
**Abstract:** Based on the analysis of the background and trends in the Global Value Chain (GVC) and the status of emerging economies in the GVC, it has been found that multilateral cooperation affects the restructuring of GVCs in at least four ways: (i) Promoting the advantages of each country to achieve a better allocation of resources in the GVC; (ii) Assisting underdeveloped countries go out of the dark corners in the GVC to form a globally-linked development and production chain; (iii) Adjusting the mechanism for both developed and underdeveloped countries to participate in activities along the global value chain and improving the network; and (iv) Fostering and deepening the global value network.

Accordingly, we suggest to do the following: (i) Coordinate national, regional and global efforts to promote the benign interaction between political friendship and economic openness, deepen the multilateral cooperation and promote global win-win in the global value activities; (ii) Build a “nation/region- industry-

enterprise- individual” value network to optimize the division and layout in global industrial chain, to promote industrial transfer and development; (iii) The emerging economies, based on “The Belt and Road”, carry out “North and South network cooperation” in the “double loop” system of the world economy; (iv) Focus on high-end “value chain order” based on the industrial clusters, and promote GVC upgrading; and (v) Based on the concept of sharing and inclusion, innovate GVC and achieve global governance and coordinated development.



# The Reconstruction of Global Value Chain and the Choice of Multilateral Cooperation Paths



**Figure1 The study map**

## Catalog

1	The background and trend of the GVC reconstruction	1
1.1	Cooperation and win-win is becoming a new GVC criterion	1
1.2	The leading role of MNEs has weakened as the role of individual and the public intensified	2
1.3	Information communication technology (ICT) accelerates global value resource allocation and industrial upgrading	2
1.4	Increasingly Fragmented and segmented GVC	3
1.5	The “low end outflow” coexissts with “high end backflow” in the international economic pattern	4
1.6	The rise of emerging economies deepens regional value chains	5
1.7	Turn global manufacturing value chain to global innovation chain	6
2	The Roles of the Emerging Economies in the GVC	7
2.1	Participation patterns of emerging economies in the GVC	7
2.2	Interests and status of emerging economies in the GVC	8
2.3	Opportunities and challenges of emerging economies in GVC collaboration	9
3	Multilateral cooperation affects the reconstruction of the GVC	11
3.1	Multilateral cooperation can help countries play their respective strengths and achieve a good allocation along GVCs	11

3.2	Multilateral cooperation helps less developed countries move out of the dark corners of the GVC and form a global chain of interconnected development and production	12
3.3	Multilateral cooperation continuously adjusts the mechanism for the participation of both developed and underdeveloped countries in global value activities and improves the global value network	15
3.4	Multilateral cooperation promotes the formation and deepening of the global value network	16
4	Promote multilateral cooperation in the GVC	17
4.1	Interaction of GVC at national, regional and global level, which promotes political exchange and economic openness, deepens multilateral cooperation in the GVC and promote global win-win	17
4.2	Build an integrated value network of “country/regional – industrial - enterprise – individual” to optimize the distribution of industrial chain division and to advance industrial transfer, cooperation and coordinated development	21
4.3	The emerging economies, based on “The Belt and Road”, carry out “North and South network cooperation” in the “double loop” system of the world economy	25
4.4	To upgrade the GVC by constructing a high end “value chain rank” based on industrial clusters	32
4.5	Coordinated global governance based on the GVC innovation and the concept of sharing and inclusion	38

## **1 The background and trend of the GVC reconstruction**

The GVC, which is increasingly fragmented, differentiated and prolonged, has entered an important reconstructing period, driven by globalization, networking and technological revolution. The trade accounting terms and international governance patterns, which were formed according to traditional international division of labor, should be upgraded to better meet the needs of an integrated GVC.

### 1.1 Cooperation and win-win is becoming a new GVC criterion

At present, the international production has been organized along the GVC. The traditional trade among industries has been gradually taken over by trade within industries and product-based labor division. The production of one item is divided into different links. These links are performed by enterprises in various countries and regions around the world, breaking the traditional production framework featuring “national/regional – industry - enterprise” and giving rise to the global value network.

For this new pattern of international division of labor to take shape, the restructuring of the global industrial chain should not only consider the resource bases, comparative competitive advantage and absolute competitive advantage, but also take a comprehensive view of global resource allocation. The allocation should be taken as a global value system, emphasizing the distribution of regional resources, the allocation of industrial resources and the allocation of

relevant supporting resources in the global value system.

### 1.2 The leading role of MNEs has weakened as the role of individual and the public intensified

With the development of the Internet economy, the leading role of MNEs in the GVC is weakening, while SMEs, Crowdsourcing and Crowd-funding are playing a more and more important role in the GVC. On one hand, the internal R&D of MNEs will gradually be surpassed by the public R&D represented by crowdsourcing, as the latter better meets the requirements of the GVC. It responds to consumers and market demand more effectively by enlisting consumers to interact and create value in the chain. Crowd-funding turns the general public into entrepreneurs and investors, and ideas into commercial projects with the enthusiasm of popular innovation. On the other hand, SMEs will replace large MNEs as major players in some fields because the beauty of being small makes up for their disadvantage in brand awareness and technology, making them an important part of future international trade.

Therefore, for global value network to create value effectively, the individual, the public and the SMEs should play important role and GVC reconstruction should be based on cooperative, inclusive and win-win partnership.

### 1.3 Information communication technology (ICT) accelerates global value resource allocation and industrial upgrading

The transformational role of ICT, represented by the Internet and Big Data, has become increasingly prominent in economic development. ICT provides a comprehensive and networked environment to test all kinds of innovative technologies, which makes platform and application main sources of value creation. More importantly, ICT also changes the connection mechanism, the production mechanism and the diffusion mechanism of the global innovative activities. Thus, ICT provides important technical support for the global innovation chain.

Therefore, in the reconstruction of value chain, we should pay attention to the application of ICT. By fully understanding the influence of ICT on global value allocation and industrial upgrading, we should pursue the network effect of scale economy, regional agglomeration and global resource allocation in GVC reconstruction, so as to build the new type of linkage mechanism, production mechanism and diffusion mechanism.

#### 1.4 Increasingly Fragmented and Segmented GVC

As traditional trade among industries has been gradually taken over by trade within industries and product-based labor division, the link of the value chain becomes dividable, the intermediate product tradable, and factors allocated more and more dispersed. As a result, a final product is not only produced in a single country, but in many countries and regions around the world. The GVC was fragmented

due to a series of services including demands creation, creative ideas, design, production, network operation, answer to regulatory authorities, financial and insurance transaction, logistics, global marketing and conference and exhibition. The logo of “Made in country X” has become irrelevant due to the development of trade. The competition between countries and regions based on a certain industry will be less and less while the competition on the production and service in a part of the value chain will lead to professional, and the global economy will be more integrated because of the depth integration of the value chain.

#### 1.5 The “low end outflow” co-exists with “high end backflow” in the international economic pattern

In the GVC, the developing countries face the risk of “low end deadlock” and “vertical squeeze”. On one hand, the MNEs are constantly refining production links, separating and organizing the complete production chain according to the national factor endowment. On the other hand, MNEs continue to enhance production efficiency through integrating production resources and forming a vertically integrated pattern. Thus, it expands the capacity of the country and reduced the cost through combining the factor endowment advantage of a country with the fragmentation of international production, but also caused the negative impact of “low end deadlock” to the post industrial countries.

At the same time, some developed countries have implemented the

strategy of “reindustrialization” to attract manufacturing industry back. For example, the United States has actively developed high value-added manufacturing industries such as smart manufacturing, new energy and biotechnology; the UK focuses on the development of ultra low carbon vehicles, life science medicine and sophisticated manufacturing industries; the French government has set up a fund for the development of strategic industries such as energy, automobiles and aviation.

Therefore, the “low-end outflow” requires the developing countries to move up the GVC while the “high-end backflow” means that the developed countries can make use of the resources more effectively in the world, and the developing countries have also gained more opportunities to participate in the global economy.

#### 1.6 The rising of emerging economies deepens regional value chains

In the past, developed countries controlled the global economic governance structure and international economic and trade rules, which reflected their international interests more. However, as regional cooperation has been deepened by increasing bilateral and regional free trade agreements, the connection between emerging economies and developed countries is deepening and the regional value chain is becoming a challenge and supplement to the GVC dominated by developed countries. Thus, in order to reduce the risk of “middle income trap”, the complementarity in both technology



and market among emerging economies will continue to upgrade the regional value chain.

### 1.7 Turn Global manufacturing value chain to global innovation chain

After the 2008 financial crisis, MNEs, financial capital, business model and other market factors has driven more rapid flow of innovative resources around the world, which extended the innovative value chain for manufacturing industry. Thus, innovation has become an important driving force for the global economic development.

Specifically, the international gradient transfer and cooperation of technological innovation will become an important trend in the development of globalization. With the rise of emerging economies, the deepening of regional cooperation, the expansion of their market demand, more and more MNEs have set up R&D and innovative facilities in emerging economies. Such “reverse innovation” has broken developed countries’ domination of the high-end in value chain. Thus, emerging economies have drawn up innovative strategies to improve R&D input and the quality of FDI, to insert high value-added links and to guide the GVC. In a word, countries actively carry out the open innovation strategy, which provides a good environment for the global innovation chain to take shape.

## **2 The Roles of the Emerging Economies in the GVC**

### 2.1 Participation patterns of emerging economies in the GVC

The rise of the emerging countries is the most significant change in global economic landscape since 21<sup>st</sup> Century. They have become an important engine for the growth of the world economy.

In recent years, emerging economies, also known as E11, have rapidly entered into the global product value chain and widely participated in the international division of labor. They also showed the different modes of participation in the GVC. Specifically, in the first group, South Korea, China, Turkey, Mexico actively engaged in the division of labor, intermediate products processing and assembly, the final product processing and manufacturing in order to earn a place for their products in the value chain. Some leading enterprises have marketed and operated their own brands. Their main characteristic is to process and assemble the imported parts and intermediate products, then export intermediate products or final products.

In the second group, Brazil, Russia, Indonesia, Argentina and Saudi Arabia are countries with abundant resources. Brazil, Russia, Indonesia and Argentina are also large agricultural countries. One of their characteristics is to exploit the domestic energy resources and export agricultural products and their processing. South Africa mainly developed and used domestic resources before 2005. After

2005, it developed petroleum and chemical industry through imported oil, and then increased its participation in the division of labor in the value chain. India's position in the division of value chain division is not obvious.

## 2.2 Interests and status of emerging economies in the GVC

As the important participant in the GVC division of labor, emerging economies' global proportion of added value in both the import and export has increased in the five years of 1995, 2000, 2005, 2008 and 2009. Other than Argentina and South Africa, the market share of added value in both export and import of all E11 members in 2009 exceeded 1%. And these two indexes of E11 as a whole are significantly higher than the EU and the United States, which indicate that E11 has an extremely important impact on the GVC division of labor and international market demand. Further analysis of individual country shows that each E11 country has a big gap with the developed countries in the share of the value added export and import, which means that E11 is still in the lower end of the GVC.

In E11, as the world's second value-added exporters and third value-added importers, in 2009, China's value-added were about \$838.6 billion in export while about \$618.5 billion in import, accounting for 8.3% and 6.1% of the global market, lower than 11.8% and 15.7% in the United States. At the same time, the value-added exports of South Korea, China, Turkey, Russia, Saudi Arabia and

Indonesia's added value exports are greater than imports, indicating strong production capacity or weak demand in the domestic market. However, Mexico, Turkey, South Africa and India indicate the opposite.

Further, the structure of added value export industry also illustrates the industry embeddedness mode and trade interests of all countries participating in the value chain division. Specifically, Saudi Arabia, Russia, South Africa and Indonesia focused more on the resource or resource processing industry with huge profits. Argentina and Brazil were mainly involved in agriculture and agricultural products processing industry, and gained a high proportion of global trade profits. China mainly obtains the trade profits through manufacturing industry, while India through service.

### 2.3 Opportunities and challenges of emerging economies in GVC collaboration

Although emerging economies are actively involved in labor division along value chain and achieved rapid economic growth, its supply and demand is not balanced. They performed more prominent in the supply of added value export while relatively weak in the demand of added value import. At the same time, the trade interests of various countries are not equal, and they are still in the primary stage of using the primary factors such as resources and labor. In addition, emerging economies are likely to face the risk of worsening trade interests in the division of value chain. For example, countries

based on a single resource developed a single economic structure and a serious dependence on foreign demand. Therefore, they are bound to face high risks from international market including market recession, slowdown of the world economic growth, and the fluctuation of international energy prices. Worst of all, the emergence of new energy will end the golden age of these resources-based countries.

The manufacturing countries based on low-cost labor in the GVC rely heavily on foreign technology and capital, their international trade interests will be further squeezed because they are easily locked in the low end of value chain and face fierce competition from other developing countries with lower labor cost. The high-energy-consuming and highly polluting sectors in manufacturing will also bring negative effects such as domestic resource depletion and environmental deterioration.

Countries that undertake outsourced labor-intensive services are also facing risks of underdeveloped domestic industries, being locked at a low level of outsourcing links, and low benefits from trade. Lastly, countries benefiting from agricultural trade inevitably face problems of low capacity of value-added export and few industrial jobs, natural disasters, price fluctuations, structure changes in market demand and so on.

As a result, while the emerging economies continue to consolidate their comparative advantages, increase the participation in the

division of labor in the value chain and gain greater benefits, they should actively cultivate their own advanced elements, improve their technical level, enhance the position of the value chain and the status of international trade, prolong the domestic value chain and enhance the strength of local enterprises, and finally build GVC division system based on domestic enterprises as the core and gain the greatest trade benefits.

### **3 Multilateral cooperation affects the reconstruction of the GVC**

#### **3.1 Multilateral cooperation can help countries play their respective strengths and achieve a good allocation along GVCs**

The multilateral cooperation can bring the advantages of countries into full play and allocate resources well along the GVC because countries differ not only in their level of economic development, but also in their political, cultural and social systems. Specifically, multilateral cooperation can affect the value chain allocation in the following areas: In the economy, the value chain covers trade and investment, finance, technology, information and environmental protection. Multilateral cooperation can accelerate trade, investment and technology transfer, encourage technical cooperation in electronic commerce, promote cooperation in industry and agriculture, strengthen cooperation between small and medium-sized enterprises, promote regional economic growth, and strengthen monetary cooperation and financial supervision. In the infrastructure,

it mainly involves the supply of development resources in developing countries and the output of surplus resources in developed countries, so as to promote cooperation in the energy and technology fields. In the area of political security, many multilateral cooperation mechanisms for dialogue and consultation have also been established and made more rational around the world.

The multilateral cooperation in these fields has contributed to the good allocation along the GVC: First, to break the international division of labor dominated by the developed countries, to move the enterprises up the GVC and the host country to the mid-to-high end of the global economic chain, thus to reconstruct the GVC; Second, some regional cooperation will facilitate the participation of countries in trade, investment and technology transfer, and promote economic integration and global resource sharing; Third, regional economic cooperation organizations all over the world will reduce trade barriers, to promote economic and trade development by pursuing scale economy in the region, and then to improve the added value in the resource allocation of GVC.

### 3.2 Multilateral cooperation helps less developed countries move out of the dark corners of the GVC and form a global chain of interconnected development and production

At present, due to the rigid global industrial division of labor, uneven development among countries and the widening gap between the rich and poor in resources and wealth, many emerging economies

have long been in the middle and lower reaches of the GVC, and many of the less developed have failed to earn a place the GVC and the division of labor. That means these countries were always kept in “dark corner” of the GVC under pressure of greater economic imbalances and distortions. Multilateral cooperation will gradually lead to interconnected development and production chain by promoting GVC reconstruction, which will enable the less developed countries to enter into the world economic division of labor, to upgrade status along GVC, to get out of the GVC dark corners, and to realize economic modernization.

### 3.1.1 Open economy and actively participate in global production: the experiences from Asia Pacific Economic Integration

The economic chain in the Asia-pacific region is shaped by opening-up policy, capital mobility and industrial transfer. Both the industrial chain and the production-consumption chain are the internal supporting elements for the construction of regional economic space in the Asia-pacific region. In particular, the progress in ASEAN's market opening and China's reform and opening up have transformed of economic links in east Asia from linear ones to network ones and formed regional production networks.

The formation of regional production networks in East Asia has promoted the two changes: One is that East Asia has become the manufacturing industry center for Asia Pacific region and the world, because East Asian production is deepening and expanding. The



other one is that the United States has become the largest export market for East Asia. With the acceleration of its industrial transfer (processing and manufacturing), the United States is increasingly importing from East Asia. Thus, the Pacific has formed an interdependent framework for demand-production markets.

### 3.1.2 Gradient cooperation to promote industrial upgrading: the experiences from the development of “The Belt and Road”

“The Belt and Road” countries, over 65 ones (China included), covers Southeast Asia, Central Asia, and Central and Eastern Europe areas, which are in different stages of industrialization, levels of economic development with various types of dominant industries. These countries have huge potential for industry cooperation because they have formed three industries at different gradient, namely technology intensive and high value-added industries (late industrialized countries), capital-intensive industry (industrialized countries), labor-intensive industries (in the early industrialized countries).

Specifically, the cooperation is not only for the low cost product exports at the middle and low end of value chain in the global division, but also for the comprehensive international flows of production factors such as capital, technology and labor. The cooperation will help countries along the “The Belt and Road” line to achieve further industrial upgrading, economic development and industrialization, and will promote the less developed countries to

step out of the dark corner of the GVC, which is of great significance to the progress of world industrialization.

3.3 Multilateral cooperation continuously adjusts the mechanism for the participation of both developed and underdeveloped countries in global value activities, and improves the global value network

At present, there are two main and independent economic circles in the global economy. First, the central-peripheral global economic cycle allocate global capital through the financial markets in developed countries. Specifically, in the international multilateral cooperation, the developed countries contribute to the industrial transfer with their products and capital while the Asian countries, as the major manufacturing center and export center, undertake the capital and industries transferred from developed countries, export the finished goods and generate the surplus of the trade and capital account, and then return the capital to the financial center. Second, in the new international multilateral cooperation, newly industrialized countries and manufacturing center mainly import resources and primary products from industrializing countries rich in resources in Asia, Africa and Latin America and export manufactured goods. In this process, cooperation expanded local market for industrializing countries and transfer mature industries.

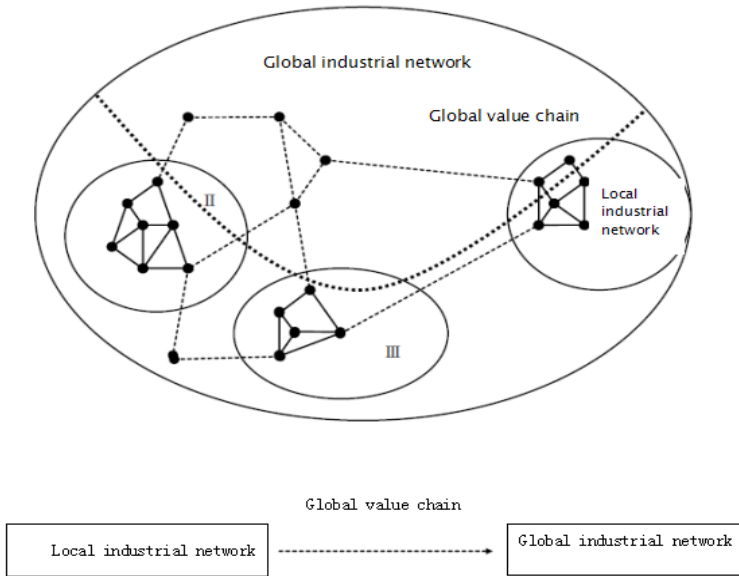
With the rapid economic development in China and other emerging countries, the world has become an integrated economy by import and export in resources, the finished products and the

technology. Hence, the two global economic cycles lay more and more emphasis on multilateral cooperation and value chain upgrading in both developed and less developed countries.

### 3.4 Multilateral cooperation promotes the formation and deepening of the global value network

With the fragmentation and segmentation in GVC, global industrial boundaries extended, each link of the industrial value chain has been broken and reorganized into a new industrial chain and industrial form, and world economic cooperation has been dominated by MNEs with greater individual and public participation. Therefore, the state cooperation is no longer based on an industry or region, but on the four-integration modular value network of “state/region –industry –enterprise –individual”. Accordingly, multilateral cooperation promotes the formation and deepening of the global value network.

Specifically, MNEs, based on cooperation of the element resource endowment and comparative advantage, built the local industry network. Further, local industrial networks formed global industrial networks through integration of GVCs with MNEs. The cooperation features designing, developing, procuring, producing and selling products in different parts of the world. Finally, this “discontinuous” geographical space economy structure will continue to be enriched as the global cooperation between individuals and the public is increased.



**Figure2 the map of global value network based on regional space and industrial network**

#### **4 Promote multilateral cooperation in the GVC**

4.1 Interaction of GVC at national, regional and global level, which will continue to promote the positive interaction between political friendship and economic openness, deepen multilateral cooperation in the GVC, and promote global win-win

As the GVC has grown, extended and refined, it has formed cross-border links in the global economy and each country has become a part. With the gradual improvement of transnational production and service networks, countries can realize value appreciation and gain benefits only when they actively open up and

integrate into the GVC.

Similarly, as the Systems Theory states that any evolving system, from low to high, from disorder to order, must remain open to cooperation. Firstly, in order to raise the level of the open economy, countries need to keep opening up to the outside world, continue to promote positive interactions between political friendship and economic openness and promote win-win results through cooperation. Besides, in order to adapt to the new economic globalization, countries must implement a more active opening strategy, break through the shackles of ideas and concepts, break through the traditional barriers, and overcome the inherent problems in the system and mechanism. In a word, the interaction of national, regional and global layers should continue to promote positive interactions between political friendship and economic openness, deepen multilateral cooperation in the GVC and promote global win-win progress.

#### 4.1.1 National perspective: political friendship and economic openness are the basis for multilateral cooperation in the GVC

National political friendship and economic openness are the basis for multilateral cooperation in the GVC. Only by fully opening in politics, truly forming the overall concept, clearly insisting on the political and economic openness, can each country deepen the GVC multilateral cooperation and achieve a global win-win. Opening to the outside world means all-round opening of economy, politics and

culture. What we need to point out here is that only political friendship can truly open up the economy and allocate global resources.

For the opening, on one hand, the countries should adopt new patterns of the open economy with full consideration to coordination of their different areas, different industries, different resources, speed up the pace of going global and enhance international operation capacity by gradually opening border key ports, border cities, economic cooperation zones. On the other hand, the countries should permit foreign investment; improve technology spillovers and comprehensive driving effects by utilizing foreign capital.

In the world, it is an inevitable trend to grant foreign investment and access national treatment. This process can be incremental. Foreign investment can first be regulated by specific law in host country, and then be granted “the most-favored-nation treatment”, and finally the “national treatment in specific sectors”. Although this trend will be influenced by the world economic situation, it is irresistible.

#### 4.1.2 Regional perspective: engaging in bilateral, multilateral and regional and sub-regional cooperation in a coordinated way

Enhancing global and national interests, accelerating the strategy of the free trade zone based on national cooperation by making full use of the world trade organization, like the G20, the ASEAN free zone, and the multilateral, bilateral, and regional platforms, as a

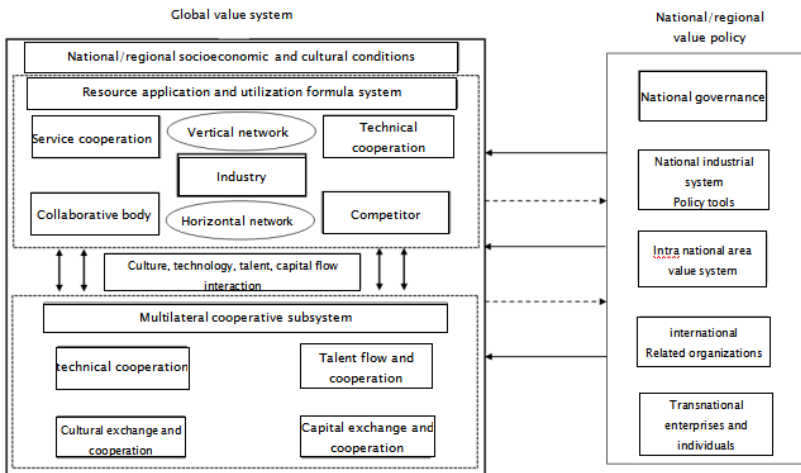
coordinated, bilateral and regional, sub-regional cooperation. Specifically, at the bilateral level, policies include strengthening the coordination of policies, enhancing openness and mutual trust, realizing complementary and dislocation competition, and maintaining common interests. At the multilateral level, suggestions include maintaining the leading role of the multilateral trading system, opposing protectionism in any form, and reducing and eliminating trade and investment barriers, and actively participating in and safeguarding the formulation of international economic and trade rules. At the regional level, we suggest form a high standard free-trade area network for multilateral (sub-regional) regions around the world by speeding up the FTA strategy.

#### 4.1.3 Global perspective: building global governance to achieve harmony and win-win

The development of cyberspace has deepened the integration of national governments, global markets and global society, and promoted the transformation of global governance in cyberspace from “autonomy theory” to “Balkan theory”. Based on the return of the global information environment and the increasing realistic challenge of cyberspace and competitive logic of world politics, the behavior body representing various interests has appeared the differentiation, the market and the social interaction, the network space has also appeared the different camp differentiation. However, in order to build win-win global governance, we should emphasize

the differentiated combination of four types, namely, community of common interests, competition, identity and risk.

4.2 Construct an integrated value network of “country/regional – industrial - enterprise – individual” to optimize the distribution of industrial chain division and to advance industrial transfer, cooperation and coordinated development



**Figure3 The concept map of an integrated value network with four-digit including “country/regional – industrial - enterprise – individual”**

With the infiltration and development of “Internet +” economy, knowledge flow has accelerated among disciplines and regions in global industries and prompted complementary cooperation between the core enterprises, hence the externality of geographical agglomeration and the traditional vertical integration has been replaced by network externalities. In a word, it constructed a global



value network with four elements, namely “country/region – industrial - enterprise – individual”.

#### 4.2.1 The components of the “nation/region – industry - enterprise – individual” value network

The global value network includes countries/regions, industries, enterprises and individuals. With the further globalization of network economy and knowledge service, enterprises can continuously reduce the transaction cost and regional barriers, expand business and geographic presence, and engage in more industries. Therefore, more and more enterprises, institutions and individuals have served as the participants of the GVC, they separately from design, product development, manufacturing, marketing, sale, consumption, after-sales service team, engage in recycling and other value-added activities. Namely, components of global value network can be refined to the country/region, industry, enterprises and individuals.

#### 4.2.2 Coordinate national and regional efforts to form synergy

The national/regional system is not only the basic component of the global value network, but also the goal pursued by each country's governance. Therefore, on the hand, high quality and sustainable international competitiveness of national/regional systems can be realized through the planning of domestic industries and regions. On the other hand, different countries / regions should form synergy in the international region to maximize the network effect of global

value.

The development of domestic industries and regions often relies on the domestic government policies to guide them. Specifically, strengthening the legal and public service system construction and establishing fair competition market environment, they provide the institutional guarantee for the development of commercial clusters. Establishing and improving the social credit system, they provide the honest social and cultural environment for the development of business clusters. Promoting industrial upgrading and regional economic development, relied on central cities, lay a solid economic foundation for the development of commercial clusters. Give full play to the role of the industry association and other intermediary organizations, they can establish and improve the cluster's internal coordination mechanism, policies upgrading and development.

The benign interaction between the development of commercial clusters and the development of urban and regional economy has improved the development level of both sides. The business cluster drives the development in the related transportation, warehousing, postal and telecommunication services, financial industry, catering entertainment industry and the real estate industry, and enhances the appeal of the city and radiation function.

As a result, the city's trade with surrounding areas promotes the industrial agglomeration and professional coordination level and speeds up regional economic development. The rapid development of

regional economy, in turn, promotes the development of commercial clusters and urban economy. Their positive interactions promote each other and push the development level of both sides to a higher level.

#### 4.2.3 Build the “Internet +” industrial space

Because industries have more extensive footholds regionally and globally and the industry value chain is reconstructed, the definition of industry standard should be updated. Industrial layout has turned from the “core-periphery” to “Internet +”. The new industry layout with “Internet +” includes the combination of online and offline, which is cross-sector, cross-generation with best possible performance and ecological impact.

#### 4.2.4 the global modular value network mainly works in virtual network space

The Internet economy reduces the transmission costs caused by distances, hence the highly compatible state of economic space-time and physical space-time were changed. The externality of network agglomeration replaces the externality of geographical agglomeration, which makes the network cooperation between countries/regions from based on the complementary value modules, and further promotes the transformation of international division of labor from the strong connection of vertical specialization to the weak connection. Therefore, the spatial effect of virtual network is the main pursuit for the global modular value network.

#### 4.3 The emerging economies, based on “The Belt and Road”, carry out “North and South network cooperation” in the “double loop” system of the world economy

In recent years there are two closely related loops which have been formed through trade, investment, labor division, elements flow, and regional integration, that is the “Core and Periphery” and the “New South-South Cooperation”. However any isolated cooperation is one-sided in the current world connection, especially with the development of emerging economics and the deeper cooperation of regions, the whole world should pursue for “North and South network cooperation”. Based on what had mentioned above, we suggest that the emerging economics should carry out “North and South network cooperation” based on “The Belt and Road” in the “double loop” system of the world economy.

##### 4.3.1 China: Key point of the “double loop” in the world economy

The reason why China can be this key point is closely related to the development of Chinese economy as well as the dual role China may take in world economy. On one hand, China is an important part of “Core and Periphery”, they get the investment of developed countries, processes exports. It has formed a considerable scale of industry base, accumulated huge mounts of foreign exchange reserve. On the other hand, it’s necessary for China to make full use of its manufacturing base, its ability of OFDI as well as its economy complementary with Asian, African and Latin American to establish

an economic loop among developing countries.

As a key point, China should continue to communicate and negotiate with developed countries. With the help of G20 and APEC, China should carry out the cooperation with developed countries such as actively participant in TPP and other new regional economic cooperation mechanisms.

#### 4.3.2 deepen the “New South-South cooperation” against the background of global “double loop”

From the perspective of cooperation, the “New South-South Cooperation” is the widely cooperation of market-based trade, finance, investment, industry cooperation and regional integration instead of the traditional trade aid. As for the trade, it not only contains the inter-industries trade (resource and product) that based on comparative advantages at the national level, but also contains intra-industry trade based on industrial chain division and intra-product trade based on intra-enterprise division of multinational corporations. In terms of finance, there are widely cooperation of regional financial institutions, development banks, investment funds, inter-regional monetary exchange, local monetary settlements and some kinds of monetary area. As for investment and industrial cooperation, OFDI among developing countries have developed rapidly. These investments have led to industrial transfer, industrial division and the process of industrialization. As for the regional integration, it’s an important economic cooperation among

developing countries in recent years. The bilateral and multilateral free trade agreements, free trade zone, regional integrations are emerging in endlessly.

As for the form of cooperation, the “New South-South Cooperation” contains inter-State multilateral trade agreements and reciprocal trade arrangements led by the central government, the economy cooperation mechanism and arrangement undertaken by both central and regional governments, the OFDI programs sponsored by both governments and corporates as well as the OFDI and cooperate program mainly involving enterprises including a large number of private enterprises, showing an active situation of government guiding, corporate doing, market leading, and cooperating between government and people.

As for the form of economy, it contains the traditional trade, economic aid and development of infrastructure as well as livelihood programs, but also OFDI, resource development, processing trade, industrial cooperation, financial cooperation, technological cooperation, which are taking a more important role. It also contains not only the advantage complementary cooperation among developing countries, but also some kinds of cooperative groups which are formed by mechanisms arrangement and safeguard the common interests of developing countries in the international economic area.

All in all, if the countries can continue to deep the “New

South-South Cooperation” at the background of world economy “double loop”, they would get more chances, promote development of their economy, promote a more balanced development of world economy.

#### 4.3.3 The new direction of internet development for the “New South-South and South-North cooperation”

At present, the global economic development is complicated. Considering the balanced development of the regional economic cooperation and the balance of the whole world economy, the promotion of “New South-South and South-North cooperation” should have new ideas, new intensions and new models.

At first, in the general thinking and model, the exploration is expanded from closed hard constrained integration model to the soft constrained integration model and the combination constrained integration model of soft and hard. The hard constrained integration model of the traditional developed countries has limited the role of cooperation. In the developing countries, the social system are different and the level of economic development are uneven, the “new South-South, South-North cooperation” should rely on the economic activities of self - forming foundation of member states, every member state has the full and equal status of sovereign rights, under the fair negotiation eliminating various trade barriers and formed corresponding economic trade circle to achieve objective integration, no need agreement constraints, no more than the national

institutions to manage, the member countries are economic cooperating in a more loose form, this is the soft constrained integration model.

The soft constrained integration model has two characteristics. On one hand, it insists the open regionalism and not engages in closed trade groups. On the other hand, it implements coordinated unilateralism, under the guidance of the collective action agenda, considering level and interests of the nation economic development, adjusting and amend its own unilateral action plan and make its own efforts to achieve the common goals. Thus, the soft constrained integration model promotes internal economic structural reform of the member states, and enhances the ability and level of the member states to compete in the world economy.

Second, establish the coordination agencies. At present, developing countries have diversified political positions, ethnic, religious, and other contradictions, as well as many boundary and territorial problems left over from history, this makes “new South-South, South-North cooperation” facing many interferences. Therefore, strengthening coordination among countries is more important to promote the smooth development of “new South-South, South-North cooperation”. If we can set up a special cooperation coordination organization, it will be conducive to the promotion of cooperation. The existing mechanisms and forums for cooperation among developing countries, such as the cooperation between the



BRICS countries, cooperation among the developing countries in the group of twenty countries, and the cooperation forums and institutions established by China and other developing countries, should play the greater role and promote horizontal communication and association of these mechanisms.

Finally, establish a reasonable assistance and compensation mechanism. The new target of “South-South, South-North cooperation” is to make the member country benefit from them. However, the degree of benefit and order of the member countries are different. Therefore, it requires building a certain compensation mechanism to balance the interests of each country. However, in the initial stage of integration, countries that have benefited more should make certain concessions of interests, and compensate for economically backward countries with damaged interests through assistance and other forms to achieve common development.

#### 4.3.4 The “The Belt and Road” is the breakthrough of the new “South-South network cooperation”

In order to make a breakthrough for new “South-North network cooperation”, it requires to concentrates our efforts, focuses on breakthroughs, creates new mechanisms and builds new platforms. In current situation, the “The Belt and Road” construction will create a new regional cooperation mechanism for “New South-South Cooperation” and will most likely achieve a new mechanism and platform for the progress of “New South-South Network

Cooperation”

First, the “The Belt and Road” construction provides a new capacity cooperation platform for “New South-South cooperation”. The cooperation framework of the “The Belt and Road” faces two missions, on one hand, China's mature and relatively surplus manufacturing industry has been transferred to other developing countries, forming the climax of the sixth international industrial transfer after the war. On the other hand, developing countries that are less industrialized use OFDI to achieve their own industrialization. The completion of these two mission involves international industrial transfer and cooperation, however, one of the prerequisites for industrial transfer is the advancement of infrastructure. The implementation of the construction of the infrastructure of the “The Belt and Road” has just met the above conditions.

Second, the “The Belt and Road” construction will establish a new financing mechanism for “new South-South cooperation”. The construction of the “The Belt and Road”, especially the infrastructure interconnection requires a lot of investment, which are huge in scale, long in payback period and have certain risks. Traditional South-South cooperation in the past was due to the fact that developing countries were largely short of funds and lacked experience in investing and financing, and had to rely mainly on international financial institutions dominated by developed countries

to obtain funding, and it also relies on international investment and financing mechanisms for investment and project evaluation and management, and funding sources and evaluation criteria all restrict the development of cooperation.

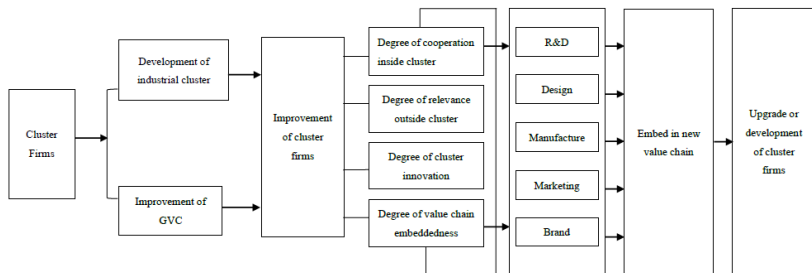
However, The Asian Infrastructure Investment Bank, initiated by China, focuses on the investment of national infrastructure investment in countries along the “The Belt and Road” line, based on China's huge foreign exchange reserve and investment capacity, the mature industrial base, the richer capital and foreign investment ability and willingness of the emerging countries such as Russia and India, and relatively more mature experience in international investment and financing than other emerging countries, which provide strong financial support for the “The Belt and Road” relevant project and investment.

Third, the development of “new South–South cooperation” will promote the coordinated development of developing countries so as to promote the orderly conduct of the new South-North cooperation, to achieve the structure of free flow, complementary advantages, equal cooperation, and relatively independent circulation under the global “new South-South, New South-North Cooperation”, and finally achieve the benign development of global value networks.

#### 4.4 To upgrade the GVC by constructing a high end “value chain rank” based on industrial clusters

The industrial cluster oriented to value improvement is not only a key factor for the sustainable development of cluster, but also the

important driving force for regions and even state value systems. GVC is composed of many value links that are distributed in the worldwide and the regional value cluster can be a node in the space distributed by GVC. Industrial clusters and GVCs are spatially coupled, interacting in time, promoting the competitiveness of regional systems, and achieving global value upgrades. Based on that, this study explores the problem of building high-end “value chain rank” and promoting GVC upgrading based on the four dimensions, that are intra-cluster collaboration, outside cluster relevance, cluster innovation and value chain embedding.



**Figure4 The high-end value chain rank based on industrial clusters**

#### 4.4.1 Upgrading of collaboration inside cluster

Cluster firms are in the complex network environment of industrial cluster, they should also compete with GVC at the same time, thus they must deal with the synergy and collaboration with other firms. The network relationship includes relationships between organizations and individuals so cluster firms should strengthen and manage their situations in industrial cluster network and GVC. The

purpose of developing relationship among corporations is to get all kinds of opportunities, resource and information. Cluster firms embedding themselves in GVC, the main channels for them to get international markets and international operational knowledge come from the huge network where firms located in this industrial cluster. Therefore, collaboration inside cluster plays an important role in firms' growth.

The degree of cooperation within the cluster based on the theory of industrial network and measured by the intensity, density, reciprocity of each other, scale of constructed networks and reputation of the firm in the relationship of industrial cluster, mainly aims at climbing up in GVC, making full use of resource available to the firm relationship network, improve the social efficiency trust, regulation and network through promoting coordinate efforts, helping the coupling of industrial cluster and GVC as well as enhancing the competitiveness of cluster firms.

#### 4.4.2 Upgrading of connectivity outside cluster

Industrial cluster emphasizes the internal association and local embeddedness of cluster members. However, if there is a lack of outside association, it would be difficult for industrial cluster to embed in GVC, let alone the coupling and interaction between industrial cluster and GVC and the realization of upgrading along GVC. For example, there are a large cluster of specialized small

industrial firms in Wenzhou, Zhejiang, China. However, they cannot get broader upgrading space by embedding in GVC. Meanwhile, the excessive association within shoe-making industry in Sino Valley prevents local industries from functional upgrading. Therefore, it's critical for cluster firms to know how to create and maintain the outside association and realize upgrading in GVC.

Specifically, cluster firms should base on their positions in industrial cluster value chain, combine industrial characteristics, deeply understand the value sources and value distribution of their industries, compare positions in value chain and situations of value acquiring of other cluster firms in order to make their own strategies. Meanwhile, the cluster firms should know the value chain positioning of global competitors from a dynamic perspective, search about their value sources, make full use of external network to find links with greater potential for profit in GVC, based on their own regional characteristics and internal advantages to leap forward to the potential profitable links as well as maintain and strengthen competitive advantage of clusters in strategic link, and finally promote cluster firms to realize sustainable growth and upgrading by continuous adjust the way they embedded in value chain.

#### 4.4.3 Upgrading of cluster innovation

The critical thing for industrial cluster upgrading and GVC upgrading is to form an innovative system, which is also an

important part of coupling industrial cluster and GVC. Cluster innovation system refers to allocation of knowledge resource, all kinds of activities for knowledge generate, transfer, diffusion and application as well as their interaction mechanism. This system aims to improve cluster innovation by interaction and learning the system elements. Firms inside industrial cluster realize their growth through learning and interactive innovation. Meanwhile, this system is dynamic and continuous changing, which in return promote the cluster to form learning organizations and upgrading along GVC.

These two-way positive feedback mechanisms promote cluster firms to upgrade with the improvement of industrial cluster and GVC. The specific way for cluster firms to achieve improvement of innovation is to use constellation effect effectively, realize innovation in R&D, design, produce continuously. Besides, the cluster firms fully take advantages of industrial cluster, continuously cultivate independent intellectual property, and improve the operational efficiency of firms and other related institutions in supply chain system. They can coordinate with suppliers, customers, marketing network and governments in the GVC and even some external clusters and economic actors outside clusters, so as to form social network based on formal contracts and informal social relationship. Meanwhile, firms inside cluster would promote generation, dissemination, spillover and diffusion of innovation under the pressure of competition and sustainable comparison. In this way, the

competitiveness of cluster firms would undoubtedly be improved and their ranks in GVC will be higher with greater innovation ability.

#### 4.4.4 Upgrading the degree of embeddedness in the value chain

To intensify value chain embeddedness, cluster firms need to analyze the upgrading of cluster firms from vertical perspective and mainly considerate relationship of different value layer of GVC and interrelationship between layers. This association can help improve relationship between firms outside the cluster and can also help the rank upgrading of firms in GVC.

The way firms embed in GVC follows the coupling of industrial cluster and GVC and this is only the first step for firms to realize their globalization. Embedding in the value does not mean taking “escalator” for upgrading. No matter how they embedded in this value chain and what upgrading opportunities can be brought for cluster, the profit would not appear automatically from that. Regardless of whether the industrial cluster adopts the above four embedded methods, cluster firms should integrate their own culture, technology, natural resource and innovation ability while together with internal and external industrial cluster organizations, markets and places. Firms should also build complete infrastructure and industrial background, strengthen intensity and density of network relationships among organizations, enhancing the structure and enlarging the scale of network relationship in order to realize



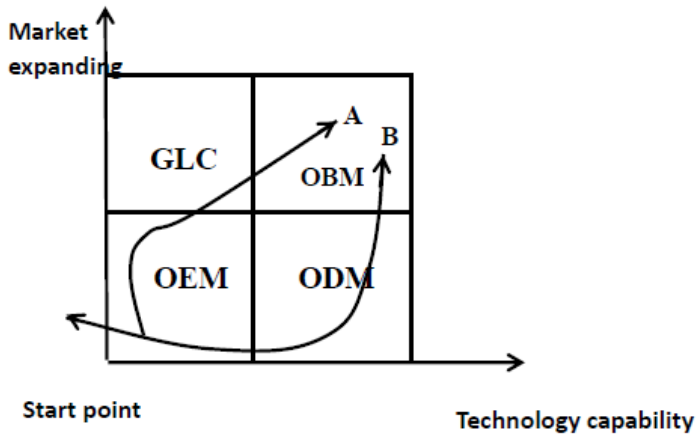
value-added of marketing and brand and promote upgrading or growth of cluster firms.

#### 4.5 Coordinated global governance based on the GVC innovation and the concept of sharing and inclusion

##### 4.5.1 The trajectory of GVC innovation

Value chain innovation is to realize value-added in linking mode and institutional arrangement and this is also a process of expansion. Specifically, GVC can be divided into four types: 1) Process innovation. Using process innovation in operational process between links and inside link in the GVC can enhance efficiency such as lowering the cost of inventory, saving waste of materials and improving distribution among firms. 2) Product innovation. That contains improving the quality and price advantage of existing products in order to enhance the market share and introduce new products faster than competitors to form advantages of differentiation. 3) Function innovation. That increases value through transforming the operational works inside firms. 4) Innovation across value chain. The key thing is to build a more profitable value chain in the place of original one. For example, firms had shifted from transistor radio production to televisions, computer monitors, personal computers and even WAP (wireless application phones) in Taiwanese, China. These innovative activities are always follows by integrated shift of production and upgrading of related industries in a region.

According to different abilities mastered, there are mainly two types of developing paths for countries who participated in innovation activities in GVC. One of them is for developing countries and regions who are better at market exploration. They may start from OEM, and then come to GLC (global logistics contracting) so that they can be included in global logistics system and realize market exploration and finally come to OBM. As for others who have better technology ability, they can realize their development in another way. They start from developing technology ability, then come to OEM and ODM and finally improve their ability of market exploitation and get their own brand.



**Figure5 The two traces of GVC innovation**

4.5.2 Build the global governance model with GVC innovation and the concept of sharing and inclusion

Based on the concept of innovation, sharing and inclusion in GVC, our research considered that the mode of GVC governance is a world governance mode rather than bilateral, multilateral cooperation. Specifically, this research puts forward the following policy suggestions:

First, traditional manufacturing industries in developing countries should embed themselves at a low-cost end in GVC. As for traditional manufacturing industries, developing countries should adapt the manufacturing skills learned from GVC to domestic market and culture so that they can make transaction easier in line with global standard. At the same time they can also avoid the disadvantages of innovation and autonomy suppression of suppliers caused by high standardization in order to help developing countries embed better in GVC and create better conditions for related industries and firms.

Second, developed countries should be more open, inclusive and cooperative and lead the reconstruction of GVC. The transfer of advanced technologies enable developing countries to join the high value-added links of value chain, deepen all aspects of cooperation in GVC and realize effective interaction of resource and long tail effect.

Third, innovation is the core and foundation of value chain reconstruction. Besides, differentiation, individualization and embedding are the main characteristics. In recent years, countries around the world have built their own innovation system. The core

elements of this system are the new concept of globalization, human resource with international vision, and the multinational corporates that located at the high end of global innovation. Economic globalization is always followed by technology and innovation globalization and the main player of technological globalization is multinational corporates. Therefore, developing countries should motivate and guide market players. Meanwhile, they should also support and encourage their multinational corporates, especially private ones and prominent foreign buyers. They should lead the cooperation of firms, which facilitates transactions among firms, brings advanced production, management skills and upgrading of industries and firms.

Forth, consolidate the social foundation of GVC based on culture exchange. President Xi once pointed out that “The key to sound relations between states lies in the affinity between their people, which largely stems from mutual understanding.” “Civilization are colorful and rich because of communication and mutual learning”. Communication can enable people in all countries to have more common language, enhance trust, deepen emotions and consolidate the social and public foundation of GVC governance. Enhancing mutual learning of cultures can draw more wisdom and nutrition from other civilizations based on mutual respects. Therefore, all countries should strengthen the cooperation in technology, education, culture, sports, health and tourism.

## **Research Team**

LI Jizhen, Professor, Associate Dean of the School of Economics and Management of Tsinghua University

SUN Zhongjuan, Assistant Professor, Capital University of Economics and Business

HOU Jun, Associate Professor, Lincoln University

ZHOU Jianghua, Associate Professor Beijing Normal University , Associate Dean in MBA center and Case research center



**Annual Meeting of the New Champions 2018**

**2018新领军者年会**

---

The Reconstruction of Global Value Chain and the  
Choice of Multilateral Cooperation Paths

**全球价值链重构与多边合作方式选择**