

Global Value Chains and Trade Patterns: A Comparative Analysis between Developed and Developing Countries

Weihua Sun

School of International Business, Yunnan University of Finance and Economics, Yunnan Kunming 650021, China

Abstract: With the continuous deepening of economic globalization, the economic interconnections among countries worldwide are increasingly close, making it impossible for any country's development to exist in isolation. The degree of economic interdependence and permeation between countries continues to deepen. In recent years, with the reduction of transportation and communication costs, the "fragmented" production model has rapidly spread globally. More and more goods are no longer produced and sold by a single country but are completed through vertical division of labor cooperation among multiple countries, with each country undertaking different stages of product production. This production model has driven the formation and development of global value chains. The deepening of global value chains has made the mutual influence between international economic cycles increasingly apparent. However, with the rise of the "anti-globalization" sentiment and trade protectionism, especially against the backdrop of the COVID-19 pandemic sweeping the globe and sluggish world economic growth, the external environment facing China's participation in the global value chain division of labor has undergone profound changes. In this situation, how to effectively respond to various risk challenges to maintain the steady and sustainable development of the Chinese economy has become an urgent and important issue that needs to be addressed.

Keywords: Global Value Chains, International Division of Labor Status, GVC Position Index, International Comparison.

1. Introduction

1.1. Background Introduction

In the context of today's globalization, trade and industrial patterns are undergoing profound changes. Globalization, as a trend, has not only changed the pattern and scale of international trade but also reshaped the global industrial division of labor and value chain patterns. Among them, the emergence and development of global value chains have become one of the important characteristics of the global economy.

1.1.1. The Impact of Globalization on Trade and Industrial Patterns

Globalization has accelerated the development of cross-border trade, breaking down national boundaries and facilitating the cross-border flow of goods, services, capital, and talent. Through globalization, production factors are more efficiently allocated on a global scale, and trade volume and speed have also increased significantly. Additionally, globalization has driven the rise of multinational corporations and the formation of international production networks, exacerbating the extension and complexity of global value chains.

1.1.2. The Emergence and Importance of Global Value Chains

Global value chains refer to the production mode in which multinational corporations disperse different stages of the production process in different regions globally to obtain cost and resource advantages. Against the backdrop of globalization, the emergence of global value chains has made the production process more complex and diversified, and production activities in various stages can be optimally allocated globally. Global value chains not only promote the growth of cross-border trade but also drive global economic growth and development, becoming a new model for international economic cooperation and competition.

In summary, the impact of globalization on trade and industrial patterns and the emergence and importance of global value chains are important topics in current international economic research. In-depth exploration of the development trends and influencing factors of globalization and global value chains helps better understand and address changes and challenges in the global economy.

1.2. Research Background and Significance

With the deepening of globalization and the increasing complexity of global value chains, there are evident differences in the positions and roles of developed countries and developing countries in global value chains, which have significant implications for their economic development and international trade. Developed countries typically play roles in high value-added segments of global value chains, possessing advanced technology, knowledge, and brand advantages, while developing countries mainly undertake labor-intensive and low value-added production stages. This difference not only affects the economic structure and industrial layout of countries but also has far-reaching implications for their trade patterns, economic growth, and social development.

Therefore, in-depth research on the differences in global value chains and trade patterns has important theoretical and practical significance for both developed and developing countries. Firstly, understanding these differences helps better grasp the development trends of the global economy, guiding countries in formulating relevant policies and strategies to enhance their competitiveness and position in the global economy. Secondly, for developing countries, in-depth exploration of the differences in global value chains and trade patterns helps identify opportunities and challenges in the process of globalization, providing references and insights for formulating effective development strategies.

1.3. Research Objectives and Methodology Overview

1.3.1. Research Objectives:

- Analyze the impact of global value chains on the economic structure and industrial layout of developed countries and developing countries.
- Explore the differences in the positions and roles of developed countries and developing countries in global value chains under the background of globalization.
- Analyze the impact of differences in global value chains and trade patterns on trade growth, economic growth, and social development of developed countries and developing countries.

1.3.2. Research Methodology:

- Literature Review: Review and analyze relevant literature to understand the current research status and main viewpoints on global value chains and trade patterns.
- Comparative Analysis: Adopt quantitative and qualitative analysis methods to compare the differences between developed countries and developing countries in terms of global value chains and trade patterns, including comparisons in participation levels, industrial structures, trade volumes, etc.
- Case Studies: Select representative developed countries and developing countries as cases, conduct in-depth analysis of their positions, trade patterns, and influencing factors in global value chains.

2. Literature Review

Driven by numerous complex factors, the global economic landscape exhibits a clear binary structure: in the global value chain (GVC) international trade and investment platform characterized by the smile curve, developed countries occupy the high-end segments on both ends, while the vast majority of developing countries are situated at the lower end in the middle of the global value chain (Banga, 2013; Dallas, 2014). As a developing country and the world's second-largest economy, China's participation in the global value chain has undergone a classic process of initial passive participation, gradual transition to active participation, coexistence of both participation modes with changing proportions, and fluctuations in its international division of labor status. Koopman et al. (2010, 2012) proposed the "GVC Position Index" and "GVC Participation Index" to measure a country's international division of labor status in the global value chain, and used this quantitative method to calculate and compare the international division of labor status and participation levels of relevant countries in the global value chain.

Due to the significant comparative advantages of developed countries in technological level, R&D capabilities, education level, and human capital compared to developing countries, most developing countries are unable to actively participate in the global value chain in the initial stages. However, this does not mean that they will actively give up participation, but rather they will participate passively. After successfully entering the global value chain through passive participation, passive participant countries can utilize the "technology spillover effects" on the GVC platform to obtain technological information (Stephenson, 2013; Aboal et al., 2015), and accumulate their own human capital and improve technological levels through "learning by doing" (Schott, 2004; Fontagné et al., 2007). As the degree of participation in the global value chain deepens, passive participant countries, under certain conditions, will gradually transition to active

participation while retaining the passive participation mode. Changes in the factor endowment structure of participating countries will also lead to changes in the proportion structure of the two participation modes.

3. Overview of Global Value Chains and Trade Patterns

3.1. Introduction to Global Value Chains

Global Value Chains (GVCs) refer to a production model in which multinational corporations organize and coordinate production activities across national borders on a global scale. It reflects the characteristics of modern economic globalization and is the result of multinational corporations dispersing production activities to different regions globally in order to obtain cost and resource advantages.

3.1.1. Concepts and Definitions

Global value chains refer to the various stages that a product goes through in the production process, from raw material acquisition, processing and manufacturing, packaging, transportation to final sales, with each stage possibly occurring in different countries or regions. These stages combine to form a multinational, complex production network involving enterprises, factories, suppliers, and other relevant institutions in different countries and regions.

3.1.2. Key Features and Constituent Elements

The main features and constituent elements of global value chains include:

Division of Labor and Cooperation: Multinational corporations allocate different stages of the production process to different participants based on the advantages of various countries and regions, achieving global division of labor and cooperation.

Supply Chain Management: Multinational corporations coordinate and control various stages of the global value chain through supply chain management, including raw material procurement, production manufacturing, logistics transportation, etc., to ensure product quality and timely delivery.

Value Chain Positioning: Different countries and regions play different roles in the global value chain, some participating in high value-added production stages and others undertaking low value-added processing and manufacturing stages, forming their own value chain positioning.

Technology and Knowledge Transfer: The formation of global value chains promotes the transnational transfer and sharing of technology and knowledge. Multinational corporations absorb and apply technology and knowledge resources from different countries and regions through production activities on a global scale.

The formation and development of global value chains not only change traditional industrial division of labor and trade patterns but also drive global economic growth and development. It has become an important feature of modern economic globalization and has profound implications for the global production and trade patterns.

3.2. Overview of Trade Patterns

Trade patterns refer to the ways and modes in which countries exchange goods and services. Traditional trade patterns mainly rely on the cross-border circulation of goods and services, while with globalization and changes in

production methods, global value chain trade patterns have gradually become one of the main forms of international trade.

Traditional Trade Patterns vs. Global Value Chain Trade Patterns

3.2.1. Traditional Trade Patterns:

Traditional trade patterns refer to the exchange of goods and services between countries mainly through exports and imports. In this mode, the core of trade lies in the cross-border circulation and sale of finished and final products, while production processes mainly concentrate within the respective countries' borders. Production activities and value creation are often completed by the producing country, while trade is a stage after product production is completed. Typical examples include cross-border trade in final products such as automobiles and electronics. For example, an automobile manufacturer may produce automobile components in one country, then transport these components to assembly plants in other countries for assembly, and finally sell the finished products globally. In this mode, cross-border trade mainly focuses on the circulation and sale of finished products, rather than the internationalization of production processes.

3.2.2. Global Value Chain Trade Patterns:

The global value chain trade pattern is an economic organizational form on a global scale, the core of which lies in segmenting the production process of products into multiple stages and establishing cooperative relationships and coordination mechanisms among enterprises in different countries and regions. This mode emphasizes the division of labor and cooperation among various stages in the global production network, thereby achieving globalization of the production process. Compared to traditional trade patterns, the global value chain trade pattern places more emphasis on cooperation and coordination among multinational enterprises and the connection and value transfer among various production stages.

In the global value chain trade pattern, enterprises typically choose specific stages of the production process to participate in based on their advantages and expertise, such as research and development, design, raw material procurement, production, assembly, logistics, etc. This division of labor not only improves production efficiency but also optimizes resource allocation. In addition, the global value chain trade pattern also emphasizes value creation, that is, adding value during the production process, thereby enhancing the competitiveness and profitability of enterprises.

Typical examples include the close cooperation among component manufacturers, assemblers, and retailers in the automotive industry. For example, the production process of a car may involve component suppliers from multiple countries and regions, which work together to complete the production and assembly of the car, and finally sell the finished products in markets worldwide. In this mode, the close connection and cooperation among various stages are key factors in ensuring the smooth progress of the production process and the high quality of products.

The difference between traditional trade patterns and global value chain trade patterns lies in the latter's emphasis on the high integration and division of labor cooperation of production and resources on a global scale, promoting the depth and breadth of international trade. The global value chain trade pattern is more complex and diversified, aiming to achieve efficient allocation of global resources and maximize value, providing new opportunities and challenges for the development of countries' economies.

4. Analysis of Global Value Chains and Trade Patterns in Developed Countries

4.1. Global Value Chain Position of Developed Countries

In global value chains, developed countries typically occupy higher positions, participating in more industries and value chain stages, and enjoying certain key features and advantages.

4.1.1. Main Participating Industries and Value Chain Stages

High-Tech Industries: Developed countries have significant advantages in high-tech industries, including information technology, biotechnology, aerospace, etc., participating in the research and development, design, and innovation stages of global value chains.

High-End Manufacturing: Developed countries have strong capabilities in high-end manufacturing, including automobile manufacturing, shipbuilding, machinery manufacturing, etc., participating in the production and assembly stages of global value chains.

Services Sector: The services sector in developed countries is well-developed, including finance, consulting, legal services, etc., participating in the financial, marketing, customer service, and other stages of global value chains.

4.1.2. Key Features and Advantages

Technological Leadership and Innovation Capability: Developed countries have strong capabilities in scientific research and innovation, possessing advanced technology and knowledge resources, enabling them to occupy higher value-added stages in global value chains.

High-Quality Talent and Management Level: Developed countries have high-quality talent and management teams, with strong organizational coordination abilities and innovation awareness, effectively managing and operating various stages of global value chains.

Brand Influence and Market Share: Enterprises in developed countries typically have well-known brands and extensive market channels, enabling them to occupy advantageous positions in global value chains through brand building and marketing.

Sound Infrastructure and Legal Environment: Developed countries have sound infrastructure and legal environments, including transportation, communication networks, legal systems, etc., providing support and guarantees for the smooth operation of global value chains.

The global value chain position of developed countries benefits from their advantages in technology, talent, brand, and infrastructure, enabling them to occupy important positions in the global economy and have a profound impact on international trade and industrial development.

4.2. Trade Patterns in Developed Countries

4.2.1. Trade Structure and Characteristics

The trade patterns of developed countries exhibit several notable characteristics in trade structure and features. Firstly, these countries typically specialize in exporting high value-added products, which have high technological content and brand premiums, such as high-tech products, high-end manufacturing goods, and various service products. Secondly, the trade partners of developed countries are relatively diverse, including other developed countries and regions, as well as

developing countries and emerging market economies, forming a broad trade network and cooperative relationships. Additionally, although developed countries excel in exports, their dependence on imports is relatively high, as these countries have large economies and consumer markets, requiring imports of raw materials, intermediate goods, and consumer products from around the world.

4.2.2. Trade Policies and Strategies

In terms of trade policies and strategies, developed countries tend to implement liberalized and open trade policies. They advocate reducing tariff barriers and trade restrictions to promote the liberalization and facilitation of international trade, further expanding trade volume and market share. Additionally, these countries focus on technological innovation and brand building, possessing advanced technology and professional knowledge in product design, production processes, and quality control. By increasing product value-added and brand premiums, they achieve trade competitive advantages. Moreover, developed countries actively participate in international trade organizations and multilateral trade negotiations, advocating the formulation and compliance of international trade rules and standards. Through strengthening trade cooperation and coordination with other countries and regions, they jointly promote the stability and development of the global trade system. Finally, developed countries also pursue diversified market expansion strategies, actively exploring emerging markets and developing country markets, achieving market diversification and risk mitigation.

5. Analysis of Global Value Chains and Trade Patterns in Developing Countries

5.1. Participation of Developing Countries in Global Value Chains

Developing countries are experiencing a growing trend of participation in global value chains. Although starting later, with the advancement of globalization and technological progress, an increasing number of developing countries are actively engaging in global value chains. They are involved in a wide range of industries, including manufacturing, processing, agriculture, and services.

5.1.1. Changes in Participating Industries and Value Chain Positions

Developing countries' participation in industries and value chain positions in global value chains is changing. In the past, developing countries mainly played roles in labor-intensive industries, engaging in low value-added processing and manufacturing stages. However, with technological advancements and industrial structure upgrades, some developing countries are moving towards the middle to high-end segments of the value chain, entering high-tech industries and the services sector, gradually elevating their positions in global value chains.

5.1.2. Challenges and Opportunities

Developing countries face a series of challenges and opportunities in participating in global value chains and trade. Challenges include shortages of technology and talent, lack of independent innovation capabilities, inadequate infrastructure, and non-compliance with environmental and labor standards. However, with the deepening of globalization and economic growth in developing countries, they also

harbor enormous opportunities. By participating in global value chains, developing countries can learn from advanced technology and management experience, enhance industrial levels and competitiveness, and promote economic structural adjustment and transformation.

5.2. Trade Patterns in Developing Countries

In recent years, the trade patterns of developing countries have undergone significant changes, showing a trend of diversification and gradual upgrading. Trade structures are gradually shifting towards high value-added products, including high-tech products, engineering and technical services, while gradually reducing dependence on raw materials and low value-added products. Trade policies are also gradually shifting from protectionism towards liberalization, with developing countries increasingly inclined towards open markets, actively participating in international trade organizations and multilateral trade negotiations, promoting trade liberalization and facilitation.

In summary, the role of developing countries in global value chains and trade is becoming increasingly important. Despite facing numerous challenges, they also contain vast development opportunities. With ongoing reforms and innovations, developing countries are expected to play a more active role in the global economy, achieving sustainable economic development and shared prosperity.

6. Comparative Analysis of Developed and Developing Countries

6.1. Comparison of Participation in Global Value Chains

6.1.1. Participation of Developed Countries

Developed countries typically engage in higher value-added segments of the global value chain, such as design, research and development, and brand marketing. With advanced technology and management expertise, these countries can secure higher profits in the global market. Due to the dominant position of enterprises from developed countries in the global industrial chain, they often control core technologies and brands, enabling them to influence the global trade pattern and industrial structure. Therefore, the role and influence of developed countries in the global value chain are not only economic but also evident in shaping global industrial patterns and market rules.

6.1.2. Participation of Developing Countries

In contrast to developed countries, developing countries usually have lower participation levels in the global value chain, mainly focusing on low value-added production stages such as raw material processing and assembly manufacturing. Although some developing countries have started to venture into middle-to-high-end segments, overall participation remains relatively limited. These developing countries face challenges in technology and management, hindering their further enhancement of competitiveness and participation in the global value chain. Hence, developing countries need to strengthen their technological innovation and management capabilities to better integrate into the global value chain, achieving sustainable economic development and enhancing international competitiveness.

6.2. Comparison of Value Chain Positions between Developed and Developing Countries

6.2.1. Value Chain Position of Developed Countries

Developed countries typically occupy higher positions in the global value chain due to their abundant technological and financial accumulations. They can dominate the global value chain, thus enjoying higher value-added benefits. These countries have strong brand influence and market competitiveness globally, positioned at the core of technological innovation and brand shaping in the industrial chain. Therefore, enterprises from developed countries have significant status and roles in the global value chain, obtaining higher profits and influence.

6.2.2. Value Chain Position of Developing Countries

The position of developing countries in the global value chain is relatively lower, mainly playing roles in low value-added production stages and lacking core technology and brand advantages. Although some developing countries have made progress in the global value chain, their overall positions are still relatively weak, requiring enhancement of competitiveness through technological innovation and industrial upgrading. In summary, there exist significant differences in the positions of developed and developing countries in the global value chain, with developed countries usually having higher participation rates and value chain positions, while developing countries face challenges in enhancing their participation and value chain positions.

6.3. Comparison of Trade Patterns

6.3.1. Trade Structure

The trade structure of developed countries is more diversified, mainly exporting high value-added products and services such as high-tech products, high-end manufacturing, and financial services. In contrast, the trade structure of developing countries is relatively single, primarily relying on exports of raw materials and labor-intensive manufactured goods such as crude oil, agricultural products, and textiles. This difference reflects the distinct positioning and roles of developed and developing countries in the global value chain, with developed countries emphasizing technological innovation and value-added enhancement, while developing countries rely more on cost advantages and resource endowments.

6.3.2. Trade Policy

Developed countries tend to implement liberalized and open trade policies, advocating for reduced tariffs and trade restrictions to promote trade liberalization and facilitation. In contrast, the trade policies of developing countries are relatively protectionist, aiming to protect domestic industries from external competition by imposing tariffs and trade restrictions, thus promoting the development and competitiveness of domestic industries. This difference reflects the different orientations and strategic choices of developed and developing countries in trade policies, influenced by their respective economic and industrial development levels, international status, and external environments.

6.3.3. Trade Competitive Advantages

The trade competitive advantage of developed countries mainly lies in technological innovation, brand premiums, and market shares, enabling them to produce and export high

value-added products and services. In comparison, the trade competitive advantage of developing countries primarily lies in low labor costs, abundant resources, and large market sizes. However, developing countries lack advantages in core technology and brand, which limits their pricing power and value-added creation capabilities in global markets. This difference reflects the distinct positioning and roles of developed and developing countries in global value chains, with developed countries focusing more on innovation and brand building, while developing countries rely more on cost advantages and resource endowments.

6.3.4. Trade Development Paths

The trade development path of developed countries is more mature and stable, mainly relying on technological innovation and brand building, achieving transformation and upgrading from traditional manufacturing to high-end industries. In contrast, the trade development path of developing countries is relatively tortuous. They typically need to gradually enhance their trade competitiveness through technology introduction, industrial upgrading, and trade policy adjustments. This difference reflects the different challenges and strategic choices of developed and developing countries in trade development, with developed countries focusing more on long-term technological accumulation and brand building, while developing countries need to continuously reform and innovate to adapt to changes in the global trade environment, achieving sustainable economic development and enhancing international competitiveness.

7. Factors of Influence Analysis

7.1. Policy Factors

Policy inclination in developed countries leans towards liberalization and openness. These countries typically adopt open trade policies, advocating for the reduction of tariffs and trade restrictions to promote the liberalization and facilitation of international trade. Furthermore, governments in developed countries strive to encourage and support technological innovation through policy measures such as tax incentives and research and development funding subsidies, promoting R&D investment and technological innovation by enterprises. Additionally, developed countries usually actively engage in international trade organizations and multilateral trade negotiations, advocating for the formulation and adherence to international trade rules and standards.

In contrast, policies in developing countries tend to favor protectionism and industrial policy orientation. To shield domestic industries from external competition, many developing countries adopt protectionist policies, such as imposing tariffs, trade quotas, and export subsidies. Additionally, governments in developing countries often pursue industrial policy orientation, supporting and guiding the development of specific industries through investment and subsidies to promote economic structural adjustment and upgrading. When faced with international trade pressure, some developing countries may adjust their foreign trade policies by implementing measures such as currency devaluation, export tax rebates, and trade restrictions to cope with fluctuations and competition in the international market.

7.2. Technological Factors

Technological factors play a crucial role in the economic development of both developed and developing countries. Developed countries typically possess advanced

technological levels and strong innovation capabilities, enabling them to gain a competitive advantage in the global market. Enterprises in developed countries invest significant resources in research and development and technological innovation, focusing on developing new products, improving production processes, and enhancing production efficiency. This technological leadership enables developed countries to occupy more core positions in the global value chain, enjoying higher value-added benefits and profits. Furthermore, the innovation capabilities of developed countries also promote the development of emerging industries, driving sustained economic growth.

In contrast, developing countries generally lag behind developed countries in technological levels and innovation capabilities. Although some developing countries have made certain progress in certain areas, overall, their technological levels remain relatively low. Lack of independent innovation capabilities leads to developing countries playing more marginal roles in the global value chain, mainly engaging in low value-added production processes. This limits the competitiveness and position of developing countries in international trade, making it difficult for them to achieve rapid economic growth and sustainable development. Therefore, the difference in technological levels and innovation capabilities becomes an important factor in the economic development gap between developed and developing countries, as well as a key determinant of their status and competitiveness in the global economy.

7.3. Market Factors

In developed countries, the internal market usually exhibits characteristics of diversity and high-end consumption. Due to higher economic development levels, consumers have higher purchasing power and demand for consumption. Therefore, enterprises in developed countries tend to produce and provide high-quality, high-value-added products and services to meet consumers' demands for quality and innovation. Additionally, the internal market in developed countries emphasizes demands for environmental protection, health, safety, etc., driving the development of related industries.

In contrast, internal market demand in developing countries often tends to be low-end and basic. Due to relatively lower economic levels, the purchasing power of most consumers is limited, primarily focusing on basic necessities of life and low-value products. Therefore, enterprises in developing countries mainly engage in the production and sale of mid-to-low-end products to meet basic consumption needs. Additionally, due to the relatively unstable market environment in some developing countries, consumer demands for quality and brands are weakened, and sensitivity to prices is higher.

On the other hand, external market demand also influences both developed and developing countries. Developed countries usually have broader and more stable external markets, with their products and services being highly competitive and attractive. Therefore, enterprises in developed countries tend to expand into international markets, seeking greater development space and opportunities. Conversely, enterprises in developing countries face challenges of unstable external market demand and fierce competition, needing to adapt to international market demands by improving product quality and reducing costs. Thus, the difference in internal and external market demand becomes one of the important factors affecting the economic

development of developed and developing countries.8.
Conclusion and Outlook

8. Conclusions and Prospects

8.1. Research Summary

This study delved into the differences and connections between developed and developing countries in terms of the global value chain and trade patterns. Through comparative analysis of their participation in the global value chain, trade patterns, policy factors, technological factors, and market factors, it revealed their different positions and competitive advantages in international trade. Developed countries typically occupy high-end segments of the global value chain, possessing advanced technology and innovation capabilities, leaning towards liberalization and open trade policies, and having diverse internal and external market demands. In contrast, developing countries hold lower positions in the global value chain, have relatively limited technological levels and innovation capabilities, tend towards protectionist trade policies, and have internal and external market demands primarily focused on basic consumer goods.

8.2. Research Limitations

However, this study has certain limitations. Firstly, due to data and resource constraints, there may be some omissions and deficiencies in the comprehensive comparison between developed and developing countries. Secondly, the study mainly focused on comparative analysis of the global value chain and trade patterns, failing to delve into other factors influencing the development of both. Lastly, due to time and scope limitations, in-depth research on certain details and specific cases may not have been conducted.

8.3. Future Research Directions

Future research could be expanded in the following areas: Firstly, further exploration of the economic development models and path choices of developed and developing countries under globalization. Secondly, attention could be paid to the development of other aspects of the global value chain, such as finance, logistics, and their impact on international trade. Additionally, comparative studies on developed and developing countries from regional and sectoral perspectives could be considered to explore the characteristics and differences of different regions and industries.

References

- [1] BANGA R. Measuring value in global value chains IR]. UNCTAD, Geneva, 2013.
- [2] KOOPMAN R, POWERS W, WANG Z, et al. Give credit where credit is due: tracing value added in global production chains IRI . NBER Working Paper, No.16426, 2010.
- [3] KOOPMAN R, WANG Z, WEI \$-. Estimating domestic content in exports when processing trade is pervasive II . Journal of Development Economics, 2012, 99(1):78-189.
- [4] STEPHENSON S. Global value chains: the new reality of international trade IR. E15 Initiative implemented jointly by the International Centre for Trade and Sustainable Development (ICTSD) and the World Economic Forum, Geneva, 2013.
- [5] SCHO" T P. Across product versus within product specialization in international trade I . Quarterly Journal of Economics, 2004, 119(2):647-678.

[6] FONTAGN L, GAULIER G, ZIGNAGO S. Specialization across varieties within products and north south competition R. CEPII Working Paper, 2007.

[7] LALL, S. The technological structure and performance of developing country manufacturing exports 1. Oxford Development Study, 2000, 28(3):337-339.