THE CHANGING LANDSCAPE OF INTERNATIONAL TRADE

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Abstract

The paper addresses the structural changes shaping international trade. Drawing on insights from theoretical and empirical contributions and relying on available statistics, it explores some of the implications of this ongoing structural transformation. It identifies the dynamic expansion of TNCs’ global production networks and the associated rapid integration of developing countries into the world economy as the common denominator of the forces underlying the steady pace of these changes. According to the findings of the paper, the increased vertical specialisation and integration, and the emergence of “global manufacturing” through TNCs’ networks have triggered significant shifts in the patterns of international trade. These new dynamics have changed the scope and geographical spread of international trade, altering the sources of trade growth and the ranking of countries in global trade. These have also caused dramatic changes in the types and categories of traded goods and services, affecting not only the composition, but the very nature of global trade flows. The implications are manyfold and far-reaching, and raise major challenges in policy terms for all countries.

Key words: world economy, international trade, globalisation, structural shifts, developed countries, developing/emerging countries, TNCs, global production networks, trade in tasks

JEL Classification: F10, F14, F23

Introduction

Highly dynamic and large scale structural changes are currently reshaping the world economy and international trade. When compared with other similar experiences in economic history, remarkable is not only the fast pace of global transformations, but also their wide scope, affecting virtually the entire world.

The shift of economic power from the West to the East and from the North to the South, i.e. from industrialised economies towards the major emerging and developing economies, particularly China and India, lies undoubtedly at the heart of these transformations. The 20th century world dominated by the two pillars, the US, on the one hand, and the EU on the other hand, is increasingly giving way to the 21st century global scene – often epitomized as the multipolar world – in which the centres of growth are distributed across both developed and developing countries.

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Moreover, the weak and uneven recovery of the global economy and international trade following the deepest postwar recession has further accelerated the structural shifts under way in the world economy. Hence, discussion and analysis of these shifts has intensified over the past few years. The quite large number of prospective studies published in recent years on this topic do unanimously suggest that the structural transformations that were set in motion are unlikely to be reversed in the foreseeable future, being driven by a vast array of technological, economic, social, institutional and organisational factors.

Starting from this major shift in the balance of economic power in the world, the paper aims to identify the main structural changes shaping global trade and assess some of their implications, from both a quantitative and qualitative point of view. Relying on available statistics and drawing on insights from theoretical and empirical contributions, it takes a look at the major trends in global trade flows in terms of dynamics, geographical distribution and composition over the last two decades. In tackling the major forces driving the structural shifts in global trade, the paper brings to the forefront of discussion the prominent role of transnational corporations (TNCs), and particularly the close interaction between the dynamic spread of TNCs’ global production networks and the increasing integration of developing and emerging economies into the world economy. It also explores, from multiple angles, the most striking implications of the changes afoot in the global trade landscape and highlights some of the major challenges arising in policy terms for all countries in the world. The paper concludes with a brief summary of the main findings.

1. Reshaping the global economy

The outstanding performance of emerging market economies – a group of middle-income countries that have become rapidly integrated into global markets since the mid-1980s – has been undoubtedly the success story of the past decade (Kose & Prasad, 2010). After being affected by different crises during the 1980s and 1990s – considered lost decades from a development perspective – their growth rates accelerated remarkably in the 2000s, and outpaced considerably the dynamics of advanced economies.

While advanced economies have suffered a sharp contraction during the 2008-09 crisis, developing economies have become the solitary engine of global GDP growth, and their direct contribution to global growth increased further in the post-crisis period. With an average growth rate of 4.7% per year between 2011 and 2025, these countries as a group will outpace by more than twofold the developed economies’ 2.3% growth rate, according to World Bank (2011) projections. (The term ”developing economies/countries” used hereafter covers both developing and emerging economies/countries, unless otherwise specified).

As a result, developing economies’ share of world GDP has risen steadily, from less than one-third in 1990 to almost half in 2012 (Table 1). Conversely, advanced economies saw their share in world GDP diminishing continuously from 70% in 1990.
Moreover, OECD (2010a) predicts that developing economies will account for nearly 60% of world GDP by 2030.

Table 1: Share of selected countries in world GDP\(^1\), 1990-2018

<table>
<thead>
<tr>
<th>Groups of countries/countries</th>
<th>1990</th>
<th>2000</th>
<th>2012(^2)</th>
<th>2018(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced economies</td>
<td>69.3</td>
<td>62.8</td>
<td>50.1</td>
<td>44.9</td>
</tr>
<tr>
<td>United States</td>
<td>24.7</td>
<td>23.5</td>
<td>18.9</td>
<td>17.7</td>
</tr>
<tr>
<td>EU</td>
<td>28.5</td>
<td>24.9</td>
<td>19.4</td>
<td>16.5</td>
</tr>
<tr>
<td>Japan</td>
<td>10.1</td>
<td>7.7</td>
<td>5.6</td>
<td>4.7</td>
</tr>
<tr>
<td>Emerging/developing economies</td>
<td>30.7</td>
<td>37.2</td>
<td>49.9</td>
<td>55.1</td>
</tr>
<tr>
<td>China</td>
<td>3.9</td>
<td>7.1</td>
<td>14.9</td>
<td>19.0</td>
</tr>
<tr>
<td>India</td>
<td>3.2</td>
<td>3.7</td>
<td>5.6</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Notes: \(^1\) GDP at PPP; \(^2\) Projections.

Source: Data compiled by the author from IMF (2013) database.

Developing economies have also become the main sources of global growth. According to IMF (2011) estimates, these countries accounted for about half of global output and two-thirds of global growth (in PPP terms) in 2011, China and India being responsible for almost half of this contribution to global growth.

The shift in economic power towards the developing world has been accompanied by a similar shift in financial power. Owing to their remarkable export success and rising incomes, developing economies have managed to accumulate huge amounts of foreign exchange reserves, create sovereign wealth funds, raise capital on the international financial markets, attract a growing volume of FDI and invest also part of their financial assets abroad (Ahearn, 2011). For example, the cumulative share of developing and transition countries in global FDI inflows exceeded in 2011 50% for the second year in a row, compared to 20% in 2000, and their share in global FDI outflows grew from 11% to 27% in the same period. Hence, these countries saw their share in global inward and outward FDI stocks increasing from 24% in 2000 to 36% in 2011 and from 11% to 19%, respectively (UNCTAD, 2012). Moreover, their cumulative share in total global FDI inflows has further risen to 58% in 2012, as global FDI inflows declined by 18% to an estimated USD 1.3 trillion, a level close to the trough reached in 2009 (UNCTAD, 2013). While FDI inflows of developed countries fell sharply (32%), those of developing countries plummeted by only 3%. And, for the first time ever, FDI flows to the latter exceeded those to developed countries.

Not surprisingly, developing countries are now increasingly shaping the global macroeconomic situation and its outlook. These countries exert a major impact on competitiveness, global income, employment and commodity price developments, and are strengthening their position within international economic and financial
organisations. In short, they affect the development prospects in the rest of the world.

In addition to reversing the centres of economic growth and altering the distribution of global GDP across different groups of economies, the sweeping changes afoot in the global economy have dramatically affected the pattern of international trade.

2. The changing pattern of global trade

Over the last several decades, international trade has been a very dynamic component of economic activity worldwide and a driver of economic growth in numerous countries. The volume of world exports has grown at about twice the rate of world GDP on average, leading to an unprecedented increase of interdependence among economies. The ratio of trade (i.e. world exports of merchandise and services) to world GDP (in current dollar terms) has been increasing continuously, reaching in 2008 its peak value, with 33%. After dipping to 28% in 2009, this ratio returned close to its historical value, despite sharp slowdown in trade volume growth in 2011 and 2012 following the quick rebound in 2010 (WTO, 2013a).

Apart from dynamic growth, the patterns of international trade witnessed far-reaching changes, reflecting new production structures emerging under the impact of rapid advances in technology, falling transportation costs, shifts in the patterns of demand, changes in the regulatory environment, and last but not least steady expansion of global production networks operated by TNCs. All in all, these have altered not only the scope and geographical spread of international trade, by creating new sources of demand and supply and opening new markets, but have also given rise to new ways of trading internationally, affecting the structure and the very nature of global trade flows. Hence, what are the main trends shaping world trade?

A round-up of the major trends modelling world trade flows over the past two decades will help us to shed light on the ongoing structural changes and their underlying forces.

- **Developing countries: key drivers of global trade growth**

Over the last two decades, exports of developing economies have grown more dynamically than those of developed ones. The gap in terms of growth rates has deepened even further during the 2000s, when exports of developing countries increased on average two times faster than those of advanced economies (Figure 1). Between 2005 and 2012, for instance, the EU’s merchandise exports and imports (in value terms) to/from the rest of the world grew at an average rate of 7%/7%, while the corresponding export/import growth was 17%/19% in India, 15%/16% in China, 11%/17% in Brazilia, and 12%/15% in Russia, in the same period (WTO, 2013a).
As a result, developing countries’ share of international trade flows has risen to 45% in 2011 up from 25% in 1990. Reversely, advanced economies have seen their share in world trade dropping dramatically to 55% in 2011, down from 75% in 1990 (WTO, 2012a). More importantly, developing countries have emerged as the main sources of global trade growth, and this role became even more apparent after the historic trade collapse in 2009. These countries’ import growth currently contributes to about half of world import demand growth, compared to 43% before the crisis (UN/DESA, 2013). By contrast, weak import demand in the developed world, particularly the EU, is mainly responsible for the sharp deceleration of global trade growth during the last two years (to 5.2% in 2011 and 2.0% in 2012), following the vigorous recovery in trade flows (13.9% in 2010) in the immediate aftermath of the Great Recession (WTO, 2013a).

Due to their high growth potential and increasing integration into TNCs’ global production networks, trade in developing economies is expected to continue to grow faster than in developed economies. According to projections by Carnegie Endowment for International Peace, their share in global trade is likely to increase to 70% by 2050 (Dadush & Shaw, 2011). Subsequently, the traditional global players – the EU, US and Japan – are now confronted with a more and more visible redistribution of export market shares within the global economy in favour of developing economies (Figure 2).

- **Spectacular increase in South-South trade**

Much of the rise in developing countries’ share of international trade flows has been due to the expansion of trade and investment ties among these countries, i.e.
South-South links, which promise to become one of the main engines of growth over the coming decade. Between 1990 and 2008, South-South trade multiplied more than 20 times, while world trade expanded only four-fold (OECD, 2010b). Accordingly, the share of South-South exports in world total went up to 23% in 2010 from just 13% in 2000. Whereas 60% of world trade was until recently made up by North-North relations, only a third is likely to be North-North in the future, a third North-South, and another third South-South (WTO, 2013b).

Figure 2: Evolution of relative merchandise export market shares of the EU, USA, Japan, China and India, 1990-2012 (Percentage of world total)

Note: 1 Excluding intra-EU trade.

Not surprisingly, over the past two decades, developing countries have emerged as both important producers and export/import markets for other developing countries, with the share of South-South trade in their total trade exceeding the 50% mark already in 2006. Asian countries play a dominant role in South-South trade, accounting for more than 80% of this trade, the shares of Latin America and Africa being by far smaller, just 10% and 6%, respectively (WTO, 2013b). Actually, it is in this context that China managed to replace Germany in 2009 as the leading merchandise exporter in the world, and to overtake the US in 2010 as the world’s largest producer of manufactured goods. However, other developing countries, like India, Brazilia, Indonesia and Mexico, are on the way to join the list of top exporters.

• Growing attractiveness of developing countries as export and import markets for advanced countries

The global network of imports and exports is no longer anchored in the North-South paradigm that defined the 20th century. Radical changes have also occurred in the patterns of trade between advanced countries and developing ones.
Due to the gradual transfer of manufacturing capability from advanced to developing countries and steady rise in the share of their exports accounted for by manufactured products, these countries have emerged as important producers and exporters of a wide array of more sophisticated and higher value added products. Accordingly, developing countries have become significant markets for advanced countries, with their share of advanced economies’ exports rising from 23% in 1985 to 34% in 2009, according to the OECD (2010a).

On the other hand, we may see a strategic reorientation of the major trading powers’ trade flows towards the more dynamic emerging markets and a visible decline of trade with their traditional partners, the industrialised economies. The ongoing repositioning of major economies in the world market place is particularly evident in the case of EU-China trade relations, the share of which increased dramatically in the last decade at the expense of advanced economies’ market shares, especially the US, EU’s main trading partner traditionally (Figure 3). These shifts also reveal that China’s rise as a super-power in world exports is not independent of the relative decline of some traditional global players (Galar, 2012). Furthermore, the redistribution of world market shares on behalf of emerging economies, especially China, provides evidence on the performance of these economies in terms of competitiveness, owing largely to their intensive involvement in TNCs’networks and their specialisation in certain stages of production in both manufacturing and services.

Figure 3: Shares of major trading partners in total extra-EU1 trade, 2000 and 2012 (Percentage)

Source: Own calculations based on Eurostat (2013) database.
Dramatic increase in trade in intermediate goods

In addition to the reconfiguration of the actors in the international trading scene and the changing direction of trade, we are also witnessing new trends in the composition of trade and the way that goods and services are produced and traded. Probably the most striking change in the structure of trade flows over the past two decades is the rising trade in intermediate inputs, i.e. trade in parts, components and accessories, especially in the manufacturing sector, but also in services, which is now estimated to represent close to 60% of total international merchandise trade and 70% of services trade.

World exports of intermediate goods nearly doubled between 1995 and 2009 (to USD 5.4 trillion), exceeding in 2009 the cumulated amounts recorded for consumption and capital goods, and representing 51% of non-fuel merchandise exports (WTO/IDE-JETRO, 2011). Trade in intermediate goods constitutes more than half of the goods imported by OECD economies and over 60% of Asia’s total imports, and close to three-fourths of the imports of large developing economies, such as China and Brazil. Asia’s large and rising share of intermediates trade reflects its key role in the processing and assembling of manufactured goods within global production networks, but also in transforming imported intermediate goods into final goods for export.

Closely related to this structural shift is the increase in the import content of exports, from a world average of 20% twenty years ago to around 40% today, according to WTO (2012b) estimates. In other words, imported inputs account for a growing share of exports, blurring the line between exports and imports as well as between domestic products and imports (Draper & Dadush et al., 2012).

These developments altogether are a reflection of the strong interconnection and interdependence among nations, and specifically the deep industrial linkages between contemporary economies. They also provide evidence on the increasingly intertwined trade and investment flows and the growing role of the latter in shaping global trade.

3. What are the forces behind the ongoing structural changes?

The above snapshot of the trends underlying the evolution of trade flows in the last two decades brings us to the assumption that TNCs and their global production networks constitute, without any doubt, the common denominator of the ongoing structural changes in world trade. What is more, there is a clear link between the dynamic expansion of global production networks and developing countries’ outstanding economic and trade performance in recent decades. This link goes back to the mid-1980s as developing countries shifted from import substitution strategies to export-oriented development strategies. In fact, it is this close interaction between TNCs and developing countries that enabled the latter to increase their role in the global economy and, ultimately, to shift the balance of economic power in the world.
And while the steady spread of global production networks is not a new phenomenon *per se*, "global manufacturing" through these networks has acquired unprecedented dimensions in recent years as a result of accelerated relocation of economic activities. Accordingly, the intensity with which it shapes the current economic and commercial landscape has increased significantly.

While the rapid expansion of international trade over the past 20 years is often cited as evidence of economic globalisation, a large and growing percentage of trade flows is not arm’s length in nature, but occurs within networks of firms pertaining to TNCs (through FDI) or associated with TNCs through contractual arrangements (i.e. non-equity relationships, such as contract manufacturing, services outsourcing etc.). Indeed, much of global trade takes place within various kinds of coordinated networks, which are economic structures that lie between the conceptual poles of markets and hierarchies (Cattaneo, Gereffi & Staritz, 2010).

The combination of rapid advances in ICT, falling transportation costs and liberalisation of trade and investment flows has enabled new ways of producing and trading goods and services, giving rise to what is known as the geographical fragmentation of production and its corollary, the relocation of economic activities. Through slicing up the production process of goods and services into stages and relocating certain stages ("tasks") outside their home country, in line with the comparative advantages of different locations, companies can reduce their costs and gain economies of scale by standardising their business on a global scale. The outcome is enhanced competitiveness. Actually, the integration of capital and advanced technologies from developed countries with cheap labour in developing countries is the essence of this efficient and profitable business strategy (Baldwin, 2011). This restructuring of production processes worldwide has led to a growing amount of *intrafirm trade*, which currently represents about one third of total world exports of goods and services (UNCTAD, 2012). But it has also triggered a rapid increase of *trade flows in intermediate goods*, i.e. trade in parts and components both in the manufacturing and services sector. Hence, rapid trade growth over the recent decades largely stems from the globalisation of consumption and, more importantly, of production under the impact of TNCs (WTO/IDE-JETRO, 2011).

4. The paradigm shift in international trade and its implications

Nowadays, production processes involve increasingly a sequentially and vertically integrated commercial chain that includes many countries, each country specialising in particular stages of the production process. Accordingly, specific industrial operations, from the conception to the assembly of final products, marketing and distribution, are no longer undertaken by a single company but increasingly outsourced within TNCs’ networks.

This new trade reality emerging under the impact of TNCs is referred to in various ways in economic literature: *trade in tasks, vertical specialisation, global value chains, production sharing, fragmentation*, to cite just a few. However, each of these concepts
suggests that a significant proportion of trade today is made up of parts and components of goods (and services) that move from one economy to another before becoming part of a final traded product. Since the final product is the sum of the multitude of "tasks" dispersed worldwide and completed at specific stages of the production process, products are no longer made by a single country (i.e. "made in country X"), but rather "made in the world", i.e. in real "global factories", to cite the newly coined terms by the WTO for describing the new trade reality.

Owing to these new dynamics, the nature of international trade is changing in several important ways. These changes have led many eminent economists to consider that a paradigm shift is under way in international trade, that calls for a radical rethinking of trade theory, one that puts "tasks" rather than "goods" at the focal point (Grossman & Rossi-Hansberg, 2006, 2011; Baldwin, 2006, 2011). For example, Richard Baldwin, who is one of the world’s leading trade theorists, suggests that at the core of the new trade paradigm defining the 21st century lies the "trade-investment-services" nexus, that reflects the intertwining of: (i) trade in parts and components, (ii) investments in production facilities, training, technology etc., and (iii) services to coordinate the dispersed production.

TNCs’ global production networks are also altering the traditional organisation of international specialisation in trade, challenging the classic understanding of comparative advantages. As the performance of "tasks" within these networks is increasingly spread across the globe, and the value of many final goods contains an impressive share of outsourced production, international trade is less today a matter of countries’ specialisation in particular industries and more about their specialisation in particular occupations and tasks (Grossman & Rossi-Hansberg, 2011). Accordingly, in the new situation, the trade pattern of a nation is inseparable from its position in the global production networks. Traditional trade in goods continues to be important in some goods and for some nations, but the most dynamic aspect of trade today is related to these networks and the associated "trade in tasks" (Baldwin, 2011).

This structural shift in the functioning of international trade has profound implications on several counts. Apart from redefining the very nature of trade relations among nations, reflecting a much closer inter-relationship and interdependence, these new trading interactions have deep implications for a wide array of policy questions, raising major challenges for all countries, whether developed or developing. The challenges in policy terms range from conceiving domestic strategies to increase competitiveness and promote education and training as well as R&D, to devising proper industrial and trade policies.

Multiple challenges are facing also the multilateral trading system and the WTO – the venue for international trade cooperation. The trade rule-book that is guiding currently trade relations as result of the Uruguay Round (1986-1994) no longer fits the new global trading scene, that entails both selling products to foreign markets and producing products through global production networks (Baldwin, 2012). Hence, the new trade rules are developed outside the WTO, particularly through
preferential trade agreements, the number of which is increasing exponentially. This threatens the very essence of multilateralism.

Finally, the new global trade landscape requires that the traditional statistical tool-kit used to measure trade be adapted in order to meet the new reality. In other words, the traditional measuring of trade – based on gross flows of products across national borders – conveys a distorted picture of world trade as it fails to account for the intermediate value-added in the final product. Recently, the WTO and the OECD launched a common project to develop new methodologies for measuring trade and new statistical data focused on “trade in value added” generated by each country, to evidence the national export content after deducting direct and indirect imports. The first results were made available to the public in January, 2013. Measuring trade in terms of value added will provide a complementary perspective on international trade flows, shedding new light upon the actual contribution of trade to national economies.

5. Concluding remarks

Sweeping changes are afoot in the global economic landscape. The shift of economic power from advanced economies towards the developing world lies at the core of these changes. Over the past decades, the world has witnessed the rise of developing economies to become a powerful force in international production, trade, and finance. The structural transformations that were set in motion will hardly be reversed in the foreseeable future as they are driven by technological, economic, social, institutional and organisational factors.

Developments in international trade are closely related to the ongoing structural shifts in the global economic landscape. In addition to steady growth, global trade relations have experienced far-reaching structural transformations under the impact of rapid advances in technology, falling transportation costs, changes in the regulatory environment, shifts in the patterns of demand, and dynamic expansion of global production networks operated by TNCs.

The dynamic expansion of TNCs’ global production networks in association with the increasing integration of developing countries into the world economy are the major forces behind the steady pace of the ongoing structural changes in global trade. Deepening vertical specialisation and integration, and the emergence of “global manufacturing” through TNCs’ networks have triggered significant shifts in the patterns of trade, changing the scope and geographical spread of trade, altering the sources of trade growth and the ranking of countries in global trade. These new dynamics have also caused dramatic changes in the types and categories of traded goods and services, affecting not only the composition, but the very nature of trade flows. Altogether, these transformations have given rise to a paradigm shift in international trade. At the heart of the new paradigm lies the deep intertwining of trade and investment, that is reflected in the steady rise of trade in intermediates, i.e. ”trade in tasks”.
The new trading interactions have deep implications for both traditional production processes and trade flows and social structures. They raise major challenges in policy terms for both individual countries and the international community, ranging from devising proper national development strategies and related economic and trade policies, to promoting international trade cooperation.

Evidently, the paper could only briefly touch upon the vast and complex issues involved in this topic. Accordingly, it should rather be considered as an attempt to give a broad overview of the ongoing structural transformations in the global trade landscape and the associated challenges. Hence, each of the issues tackled above calls for a more profound approach and a further deepening of research.

References

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