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## New developments in world trade in the first quarter of the 21<sup>st</sup> century

This paper aims at presenting an overview of the six most important trends in the world trade of our times: (1) a continuing expansion of world trade volume – but with declining dynamism, (2) new relations between the old and the new world-trade powers, and (3) further shifts in the sectoral composition of trade flows (commodities, manufactures, and services). In addition, there is the influence of (4) new players in the commodity trade (i.e., the ‘financialisation’ of commodity trade), (5) new forms of enterprise cooperation in manufacturing (production networks, strategic alliances, global value chains), and (6) new tradables in the service sector.

Keywords: BRICS, commodities, services, global value chains, financialisation

JEL classification: F10, F20, F50

### Nowe trendy w handlu światowym w pierwszym kwartale XXI wieku

Niniejszy artykuł przedstawia charakterystykę sześciu najważniejszych obecnie trendów w handlu światowym: (1) stale rosnącej, choć coraz mniej dynamicznie, wielkości obrotów w handlu światowym, (2) nowych relacji pomiędzy starymi i nowymi potęgami handlowymi oraz (3) dalszych przesunięć w branżowej strukturze przepływów towarów, produkcji i usług. Rozważyć należy ponadto wpływ (4) nowych podmiotów w handlu towarowym („finansjalizacja” handlu towarowego), (5) nowych form współpracy przedsiębiorców produkcyjnych (sieci produkcyjne, współpraca strategiczna, globalne łańcuchy wartości) oraz (6) nowych produktów w branży usługowej.

Słowa kluczowe: BRICS, towary, usługi, globalne łańcuchy wartości, finansjalizacja

Klasyfikacja JEL: F10, F20, F50

## Introduction

Since the 1990s, the global economy has changed dramatically. Three developments deserve special attention. First, the dual technical revolution of computerisation and containerisation has radically reduced international transport and communication costs. This has created the basis for the further expansion of world trade volume (‘shallow integration’). In conjunction with cross-border invest-

ments, transnational production and trading networks have emerged ('deep integration'). Secondly, major economies that hitherto had largely been closed – Russia, India, and, above all, China – have opened up to the world economy. This resulted in a new geography of international trade. Thirdly, many countries with low and medium *per capita* income that had reversed their development strategies from import-substitution to export-diversification based industrialisation have eventually opened up their home markets and are now competing for foreign investments. Today's structures of world trade are the result of these processes; they constitute one aspect of the present era of globalisation.

Which developments will shape the future of world trade? Some trends have already become visible: (1) a continuing expansion of world trade volume – but with declining dynamism, (2) new relations between the old and the new world-trade powers, and (3) further shifts in the sectoral composition of trade flows (commodities, manufactures, and services). In addition, there is the influence of (4) new players in the commodity trade (i.e., the 'financialisation' of commodity trade), (5) new forms of enterprise cooperation in manufacturing (production networks, strategic alliances, global value chains), and (6) new tradables in the service sector.

## 1. The volume, the importance of partners, and the composition of world trade

### 1.1. Further expansion of world trade, but less dynamism

The ratio of world exports to world production rose from below 20% in 1990 to about 30% [WTO, 2016]. Economies around the globe have become increasingly integrated into the international division of labour. This has, notwithstanding arguably an increase in inequality [Piketty, 2014], contributed to the increase in the world's average material prosperity [Legatum, 2016] – as predicted by liberal trade theory since the times of David Ricardo: If every economy produces what it can produce efficiently and imports everything else, specialisation gains occur.

However, the integration dynamics have slowed down in the past ten years. While a 1% increase in world gross domestic product in the 1990s was accompanied by a 2.2% increase in export volumes, this figure fell to 1.7% on average over the years 2004–2014 [Nakajima et al., 2016; Deutsche Bundesbank, 2016; Lewis, Monarch, 2016]. In other words, the integration of individual economies into the global economy is still progressing – but less dynamically than in the 'golden decade' of globalisation.

Four main reasons can explain this decline in the output elasticity of global trade. First, the enormous economic growth associated with the opening up of China (1978) and the pent-up demand between River Elbe and Bering Strait since the implosion of the Soviet Union (1989) had provided strong stimuli to world trade. In the meantime, however, these effects have waned, and the demand in other world regions is not growing at equally high speeds.

Secondly, the global economic crisis of 2009 and the subsequent European sovereign debt crisis have left wounds in the global economy that have so far only partly healed. Global demand still shows substantial weaknesses in expenditure categories such as investment goods and durables. As trade flows are 40% machinery and transport equipment, global trade is very sensitive to trends in investment [Lewis, Monarch, 2016].

Thirdly, the deceleration in the expansion of global value chains seems to bear some responsibility for the slowdown – especially due to an expanding in-house production in China [Nakajima et al., 2016].

Finally, maritime transport costs and tariff barriers to international trade have stabilised at historically low levels. Thus, there seems hardly any scope left for further similarly dramatic cost-cutting impulses. Negotiations on further cost reduction in international trade by reduction of non-tariff barriers to trade, such as differences in national industrial norms, have come to a standstill. The deceleration in the pace of trade liberalisation is visible both within the WTO framework (in the present Doha Round) and with regard to some bilateral agreements (especially the Transatlantic Trade and Investment Partnership, TTIP). What can be expected for the future are even new forms of protectionism (such as the Trump administration's 'America First' policy) as globalisation without sufficient mechanism to equalise its benefits seems to be producing too many losers, who tend to lobby for less free trade.

## 1.2. New relations between old and new world-trade powers

With diminishing dynamics in volume growth, international trade conflicts may be exacerbated as exporters – often politically supported by their home administrations – are more and more in need to secure the growth of their sales at the expense of foreign competitors rather than by participating in a strongly growing market. We are currently witnesses of such a trade conflict in the steel industry: European producers and the EU Commission, and finally also the 2017 G7-summit in Taormina have accused the Chinese state-owned enterprises of offering their products below production costs, i.e., of practicing state-assisted 'dumping' [Berschens, Heide, Woche, 2016; Rinke, Poltz, 2017].

Immediately after the Second World War, transatlantic trade was the most significant global trade flow. In the following years, foreign trade between North

America and Western Europe was increasingly supplemented by an Asian component. The new spatial structure of world trade was partly triggered by the economic rise of Japan, then by the catching up of different generations of 'tiger states', such as South Korea, Thailand, and Malaysia – and partly triggered by technical innovations and the changing pattern of world demand, especially by the rise of demand for electrical and electronic devices. The shift of world trade to Asia has now been completed through the rise of China. In spite of all its internal problems, especially regarding the overuse of the environment, and in spite of social and political issues, China is on the way to shaping the first decades of the 21<sup>st</sup> century as the leading global trading power.

In addition, further global trading powers outside of East Asia have become apparent: Brazil, Russia, India, and, to a lesser extent, South Africa – the so-called BRICS [Kappel, 2013]. The new geography of world trade – its multi-polarity – can be easily demonstrated: between 1993 and 2014 the share of the 'triad' (US, Germany, and Japan) in world exports fell from 33% to 21%. At the same time, the share of the BRICS countries increased from 6% to 20% – with China now claiming the largest share [WTO, 2016; UN, 2017].

Presently, the common interests of the newcomers prevail. This can be seen, for example, in the founding of a joint development bank, a competitor to the American-dominated World Bank – the New Development Bank, founded in 2014 and headquartered in Shanghai with a branch office in Johannesburg [NDB, 2017]. In the medium term, however, marked differences also between the BRICS countries are to be expected, because these economies compete in similar segments. In the steel industry, for example, Chinese, Brazilian, and Indian companies are already among the world's largest manufacturers [WSA, 2017].

As regards the complexity of their export portfolio, the newcomers are not yet in the same league as the established trading powers. A complex portfolio is a mix of export goods that contains many different product categories as well as products that not many other countries can export. Economies with a more complex export portfolio are more innovative, can capture a larger share of the value added in global production networks, have a better ability to adapt to new trends, and are less prone to the vicissitudes of the world economy. Japan, Germany, Switzerland, South Korea, and Sweden presently occupy the top five ranks of export complexity. China is ranked 19<sup>th</sup>, India 45<sup>th</sup> [Hausmann et al., 2017].

Another good news for the old world-trade powers is that the new global players are not just exporting countries, but also, to almost the same extent, importing countries. Thus, the rise of these economies in world trade will not only present future challenges, but also opportunities for the established powers – even if not equally distributed across the industries. While China had been able to increase the export value of ships by 18 times since the turn of the 21<sup>st</sup> century, the German shipyards, for example, only tripled their export value [UN, 2017]. On the

other hand, meat, pharmaceuticals, or metalworking machines from Germany have found a rapidly growing acceptance in the Chinese market [UN, 2017].

What can be expected for the future are new imbalances, trade conflicts, but also new opportunities for cooperation between old and new trade powers.

### 1.3. Shifts in the composition of world trade

Today, the share of agricultural products in world trade volume is about 10%, while the proportion of fuels and mining products is around 20%. More than half of world trade consists of processed products: mainly chemicals, telecommunication equipment, cars, steel, textiles, and clothing. The share of services such as transport, tourism, or consulting in world trade volume is almost 20%.

Between 1980 and 2011, the volume of fuels and mining products in world trade doubled, the share of agricultural products almost tripled, but the share of processed goods increased almost sixfold [WTO, 2016]. The share of services in world trade has remained roughly constant since the beginning of the 1990s. One of the main reasons for the different growth rates is the structural change in the economies participating in world trade: with increasing economic prosperity, the importance of agriculture decreases, as the demand for food rises disproportionately slow in comparison to the rising incomes ('Engel's Law').

A second reason is the technological response to the increasing scarcity of raw materials [Wohlmuth, 2013]. Although there are but few examples for the de-linking of energy consumption and economic growth ('green growth'), major savings in raw material consumption have been possible, for example by the miniaturisation of many products (such as computers and mobile telephones) and application of microsystem technology and nanotechnology to production processes. Furthermore, the use of new materials, such as the light construction material carbon instead of steel, has influenced global trade flows. For petroleum, in turn, a number of substitutes have emerged, such as locally generated energy from renewable sources. As a result, the oil and mining industry is currently also growing at a disproportionately low rate in relation to the total world trade volume.

The importance of the industrial sector in terms of employment and value added increases in the course of economic growth, as income elasticity of demand for industrial products is larger than unit. At even higher levels of income, services are disproportionately strongly demanded, and the industrial sector falls behind the service sector in its relative importance ('Fourastié's Law'). In post-industrial economies, business-related services such as transport, financial services, software development, but also personal services such as tourism and medical treatment become the dominant areas of employment and value creation.

With more economies entering the medium- to high-income level of economic development, the importance of raw materials in world trade will continue to diminish while the importance of processed commodities and services will further increase.

## 2. Intra-sectoral changes

### 2.1. New players in commodity trading

Since the turn of the millennium, financial capital has surged to a large extent into commodity futures markets [Bass, 2012]. There are three reasons for this. First, the ongoing low interest rate policy in high-income countries – in response to the ‘dot-com bubble’ (2001), the Great Recession (2009), and the subsequent European sovereign debt crisis, which led to a global liquidity glut. The banks have access to low-cost capital, but this has hardly been passed on to the real economy and rather flows into the banks’ proprietary business. Secondly, in some high- and medium-income economies, very high private saving stocks are available for speculative transactions. Thirdly, financial instruments have been legalised or newly created by means of which capital can be collected and placed on the commodity futures markets by purely financially motivated actors (such as hedge funds). The financial industry has, for the most part, distanced itself from its role as a service provider to the real economy and has itself become a driver of global economic activity. This poses new uncertainties to the world trade order and commodity price rallies in the global market such as those in 2011 will continue to occur.

### 2.2. New forms of cooperation in industry

Since national markets have become more and more open to foreign suppliers, competition between companies of different home countries has increased. Also, product life cycles have become shorter and shorter. This can be illustrated by the popular car model Volkswagen Golf; its first generation was built for nine years (1974–1983), while the time span of subsequent generations continuously decreased to reach four years (2008–2012) for the sixth generation [Deutscher Bundestag, 2016]. Companies that strive for innovative leadership are therefore targeting the global market right from the beginning in order to quickly recoup the high research and development costs.

This, however, also leads to new international forms of enterprise cooperation. Companies are, for example, entering into strategic alliances with foreign competitors to jointly develop or produce new products while still competing in other fields. An example of this phenomenon is the cooperation between Daimler,

Renault, and Nissan in the automotive industry. Another form of international business cooperation, which is often more about cost reduction than innovation, are global value chains (GVCs) [UNCTAD, 2013]. GVCs include the production of intermediate and final products as well as the provision of the preceding and subsequent services, such as product design or marketing, at various locations in the world. The motive for this is to make use of specific location advantages – depending on the production phase, for example, low unit labour costs in one location or high innovative capacity in another. The creation of global value chains implies the combination of fragmented production steps through cross-border trade. In this process, many subsidiaries of the dominant companies are involved. Today, roughly one third of the world's foreign trade is intra-firm trade. However, independent suppliers to global production networks are also involved and although they are less visible in trade statistics, they are not independent of the chain, as it is coordinated by dominant companies by defining standards and by obliging the suppliers to comply with such standards [UNCTAD, 2013].

The international dimensions of value chains can easily be demonstrated in the garment industry. The supply chain begins on the cotton fields in Uzbekistan or on the sheep pastures in Australia as well as in the petroleum industry of the Gulf States. Yarn spinning mills and the petrochemical industry supply the raw materials for weaving mills in China. American or Japanese garment manufacturers develop the design and define the marketing channels. The garment is sewn in Bangladesh, from where the clothing is shipped to Europe or the US for sale to the primary consumers. Finally, second-hand clothes end up in African markets.

Globally marketable new products and the establishment of global value chains require the unification of national industrial standards. New agreements such as the Transpacific Partnership (TPP) and the transatlantic agreements TTIP and the Comprehensive Economic and Trade Agreement (CETA) can provide a framework. Such agreements are also directed against the newcomers in the global economy: if it is possible to transform the standards of European-American-Japanese manufacturers into global standards, other economies have to go along with them. The reason is that standards have a high pull-in effect: the more manufacturers get involved, the more difficult it gets for the rest to stay outside. However, this intention of the established trade powers has already triggered reactions from the newcomers. In particular, China is trying to establish its own industrial standards in regional cooperation agreements. Thus, one might conclude that the future of world trade will bring about much fiercer disputes on standard setting rather than on simple tariff issues.

### 2.3. New internationally traded services

In addition to tangible commodities, intangible goods are also traded across borders: services. In the case of a service, production and consumption coincide, which so far has restricted their distance-hurdling tradability. While this will remain the case with personal services such as a haircut, many other services have recently become tradable thanks to the Internet. Examples include e-commerce through retail companies such as Amazon or eBay, e-banking, medical e-diagnoses, or legal e-advice.

As has been said above, the share of services in world trade has remained roughly constant since the beginning of the 1990s. It is foreseeable, however, that there will be an increase in the near future, as the commercial use of the Internet, while still far from its global potential, is rapidly growing. This process is also being accelerated by further technical innovations: new key technologies, such as the 'Internet of Things', which will replace some of the goods trade by service trade, and the fusion of products and services such as the combination of sensors and diagnostic apps in medical technology.

## Conclusions

A new geography of world trade, new commodity structures, new players, and new forms of cooperation have emerged. World trade will continue to change significantly in the coming years. Many developments have economic benefits, but also enormous fiscal, environmental, and social costs. New ports must be built, the ecosystem of the seas is already burdened almost to the breaking point, and the structural change induced by globalisation demands enormous flexibility from ordinary citizens. In some countries, social acceptance for the further removal of boundaries to world trade is diminishing. However, as can be learned from history, fundamental technical and economic changes cannot be stopped. But they can be shaped politically.

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