

**Zdzisław W. Puślecki**

Adam Mickiewicz University in Poznań

e-mail: [zdzislaw.puslecki@amu.edu.pl](mailto:zdzislaw.puslecki@amu.edu.pl)

---

## THE IMPACT OF THE RISE OF GLOBAL SUPPLY CHAINS ON THE FOREIGN TRADE POLICY

---

### WPLYW WZROSTU MIĘDZYNARODOWYCH ŁAŃCUCHÓW DOSTAW NA ZAGRANICZNĄ POLITYKĘ HANDLOWĄ

---

DOI: 10.15611/e21.2016.3.17

**Summary:** The main aim of the article is the indication of the impact of the rise of global supply chains on the foreign trade policy. The subject of the discussion and theoretical contribution in the undertaken research program are new tendencies in international business – the rise of global supply chains, the impact of the rise of global supply chains on the political economy of trade and countries motivations for cooperating on trade policies and the rise of global supply chains and increasing importance of bilateral agreements in the foreign trade policy. It is important to underline that a few multinational firms are responsible for a major share of world trade and for the rise of global supply chains. On the one hand, these firms should support regulatory harmonization across different Preferential Trade Agreements (PTAs) in order to lower trade costs. On the other hand, they might also resist harmonization – and encourage certain non-tariff measures – in order to prevent new competitors from entering markets. This may partly explain the persistence of regulatory divergence, and suggests that the political economy of regulatory convergence, especially in the conditions of the rise of global supply chains, may be more complex than is sometimes suggested.

**Keywords:** foreign trade policy, global supply chains, anti-protectionist forces, cooperating on trade policies, multilateral trade negotiations, bilateral trade policy.

**Streszczenie:** Celem głównym artykułu jest przedstawienie wpływu wzrostu międzynarodowych łańcuchów dostaw na zagraniczną politykę handlową. Przedmiotem dyskusji i równocześnie nowymi wartościami wniesionymi do dotychczasowego dorobku naukowego, wynikającymi także z celów szczegółowych w podjętym zadaniu badawczym, są nowe tendencje w biznesie międzynarodowym ze zwróceniem uwagi na wzrost międzynarodowych łańcuchów dostaw, wpływ wzrostu międzynarodowych łańcuchów dostaw na ekonomię polityczną handlu zagranicznego i motywacje państwowe dla współpracy w polityce handlowej oraz zależności między wzrostem międzynarodowych łańcuchów dostaw a zwiększaniem znaczenia porozumień dwustronnych w zagranicznej polityce handlowej. Ważne jest tu także podkreślenie, że wiele korporacji międzynarodowych istotnie wpływa na wysoki ich udział w handlu światowym i na wzrost międzynarodowych łańcuchów dostaw. Należy zaznaczyć,

że z jednej strony firmy te mogą wspierać uregulowania harmonizacyjne w ramach różnych Preferencyjnych Porozumień Handlowych (Preferential Trade Agreements – PTAs) w celu obniżania kosztów handlowych. Z drugiej jednak strony – mogą przeciwstawiać się harmonizacji i wspierać wprowadzanie różnego rodzaju środków pozataryfowych w celu zabezpieczenia się przed nowymi konkurentami wchodzącymi na rynek. Może to częściowo wyjaśniać utrzymywanie się rozbieżności w regulacjach handlowych i sugerować, że ekonomia polityczna dotycząca konwergencji uregulowań handlowych, szczególnie w warunkach wzrostu międzynarodowych łańcuchów dostaw, powinna być bardziej kompleksowa, niż się niejedenkrotnie wydaje.

**Słowa kluczowe:** polityka handlu międzynarodowego, światowe łańcuchy dostaw, siły antyprotekcjonistyczne, współpraca w polityce handlowej, wielostronne negocjacje handlowe, bilateralna polityka handlowa.

## 1. Introduction<sup>1</sup>

International trade during the rise of global supply chains interfaces with many other policy areas, such as macroeconomic policy, intellectual property, environmental protection, health and employment. In some of these policy areas, there are well-developed multilateral regimes, while in other areas multilateral cooperation is more incipient and institutional frameworks are less developed. The fragmented, decentralized and non-hierarchical nature of the international trade system makes the pursuit of coherence particularly challenging, fragmentation has the advantage of allowing for experimentation as different policies can be tested at the bilateral, regional and multilateral levels. A number of institutions and policy processes are in place to enforce better surveillance of exchange rates and reduce global imbalances. However, in the time of the rise of global supply chains the question arises as to whether these will be used to set up a more cooperative system of exchange rates at the international level, and what role the World Trade Organisation (WTO) will play in this system.

There are a growing number of WTO disputes involving measures relating to environmental goods or policies. The challenge of securing agreement is made more acute by the need to resolve difficult questions during the rise of global supply chains about the effectiveness of different policies and their impact on trading partners, the answers to which depend on a number of factors, such as the technology involved, the characteristics of the sector and the markets at issue.

Under a model of multilateral level governance, which was originally developed in the context of European integration, policy-making can take place at many different levels (international, national and various sub-national) and involve diverse actors (including non-state actors). While these additional layers of governance –

---

<sup>1</sup> The paper prepared in the framework of the Grant OPUS, Narodowe Centrum Nauki – NCN (National Centre of Science – NCS), Nr UMO – 2013/11/B/HS5/03572.

and the resulting policy dispersion – can better target policies and encourage policy experimentation, they can also make coordination more difficult. This policy will have also an impact on international trade especially during the rise of global supply chains. Without some kind of agreement at the multilateral level, the trade impact of these national or domestic measures is likely to lead to frictions between WTO members and may eventually result in formal disputes being brought to the WTO.

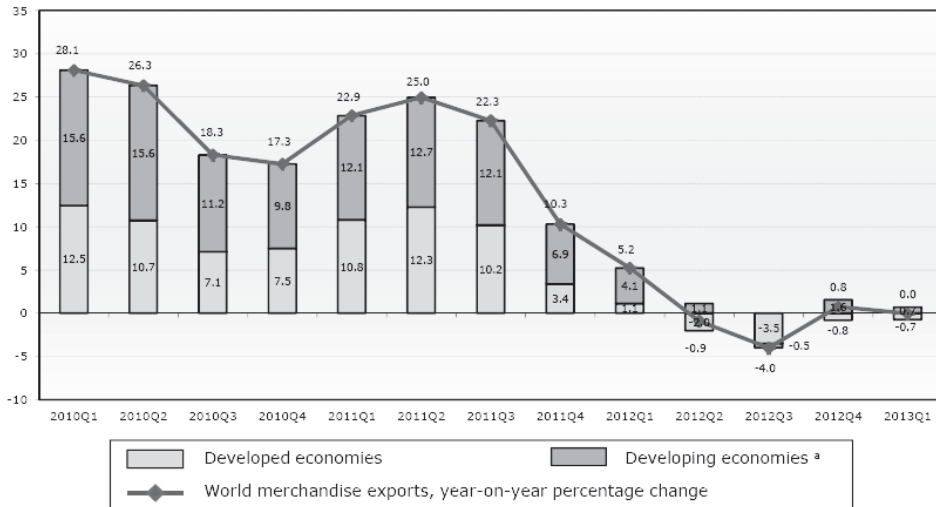
## **2. Materials and methods**

Methodologically inclusive account breaks new ground in the new political economy models on contemporary foreign trade policy. The article presents new tendencies in the international business, the impact of the rise of global supply chains on the political economy of trade and countries motivations for cooperating on trade policies and the increasing importance of bilateral agreements in the foreign trade policy. The general theoretical approach will be of broad interest to economists interested in international and institutional questions as well as to political scientists. The main method applied in this research was a method of scientific study. The institutional method, the comparative method, the documentation method and statistical methods as well as the descriptive method and the methods of deductive and inductive forecasting were used.

## **3. Discussion**

### **3.1. New tendencies in international business – the rise of global supply chains**

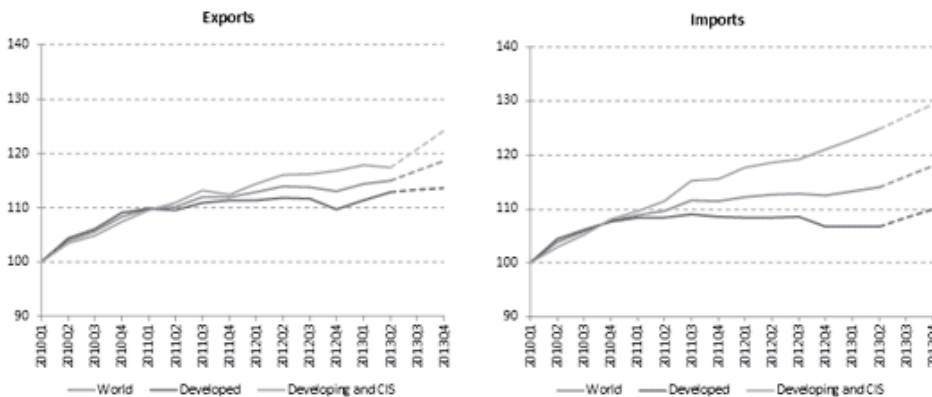
Countries and producers increasingly specialize in certain stages of production depending on their particular comparative advantage [Krist 2013; Jackson 2013]. It is importance and magnitude of this development for foreign trade policy. It is also necessary to underline that transport and energy costs, for instance, are reasons why supply chains remain more regional than global. Krugman [1991] brings increasing returns together with capital and labor migration and transport costs into one model. Krugman's [1991] model has become a "workhorse" of economic geography and international trade. The model is too complex to explain in the article, but the reasons for that complexity are clear to see – when everything becomes "endogenous" small initial differences can make for big effects. To minimize transport costs, for example, firms want to locate near consumers but consumers want to locate near work. Thus, there are multiple equilibria and at a tipping point the location decisions of a single firm or consumer can snowball into big effects. A related trend is also a new form of regionalism that is sometimes referred as integration process development [Baldwin 2012].



<sup>a</sup> Includes significant re-exports. Also includes the Commonwealth of Independent States (CIS).  
 Note Due to scarce data availability, Africa and Middle East are under-represented in world totals.

**Figure 1.** Contributions to year-on-year growth in world merchandise exports, 2010Q1–2013Q1 (percentage change in US\$ values)

Source: WTO Secretariat estimates, based on data compiled from IMF International Financial Statistics; Eurostat Comext Database; Global Trade Atlas; and national statistics [WTO Secretariat 2013].



Figures for 2013Q3 and 2013Q4 are projections.

**Figure 2.** World merchandise trade volume by level of development, 2010Q1–2013Q4<sup>a</sup> (seasonally adjusted indices, 2005Q<sub>1</sub>=100)

Source: [WTO Secretariat 2013].

The differences among firms involved in trade are also important for the future development. The picture that arises from the trade literature and the data is that even if many firms are indirectly involved in trade-related activities, only relatively few are exporting or importing and these firms tend to be larger and more productive than others (Figs 1, 2, Table 1). Such firms also have a role in technology advancement and in the diffusion of know-how through supply chains.

**Table 1.** World merchandise trade and GDP, 2009-2014<sup>a</sup> (annual % change)

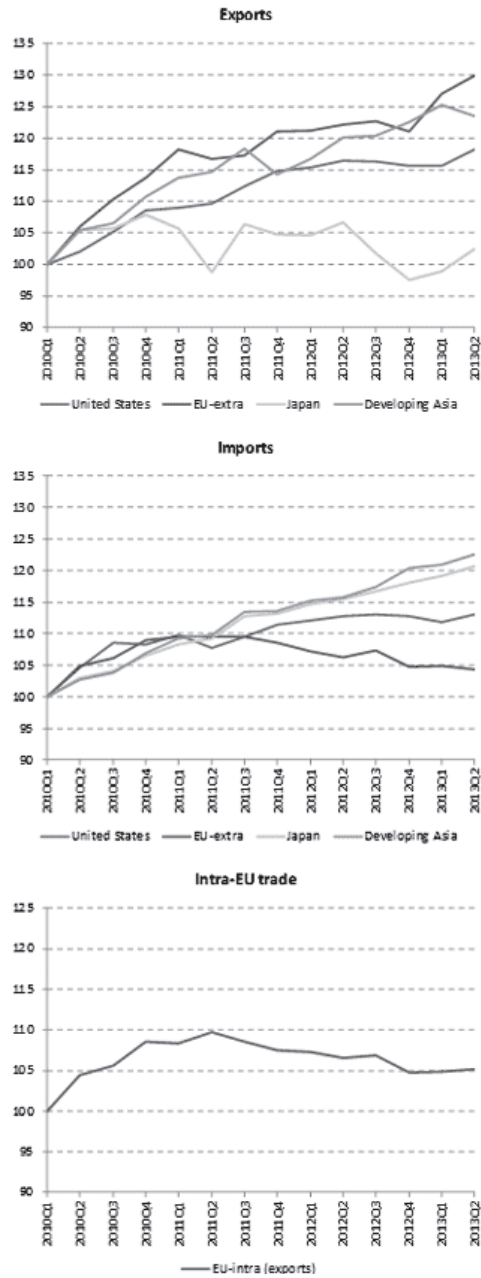
	2009	2010	2011	2012	2013P	2014P
Volume of world merchandise trade <sup>b</sup>	-12.5	13.8	5.4	2.3	2.5	4.5
Exports						
Developed economies	-15.2	13.3	5.1	1.1	1.5	2.8
Developing economies and CIS	-7.8	15.0	5.9	3.8	3.6	6.3
Imports						
Developed economies	-14.3	10.7	3.2	0.0	-0.1	3.2
Developing economies and CIS	-10.6	18.2	8.1	4.9	5.8	6.2
Real GDP at market exchange rates						
Developed economies	-2.4	3.8	2.4	2.0	2.0	2.6
Developing economies and CIS	-3.8	2.7	1.5	1.2	1.2	1.9
Developing economies and CIS	2.1	7.4	5.5	4.7	4.5	4.9

<sup>a</sup> Figures for 2013 and 2014 are projections; <sup>b</sup> average of exports and imports.

Source: [WTO Secretariat 2013].

The demand for imports in developing economies is reviving but at a slower rate than expected. This hindered the growth of exports from both developed and developing countries in the first half of 2013 and 2014 was the reason for the lower forecasts. Although the trade slowdown was mostly caused by adverse macro-economic shocks, there are strong indications that protectionism has also played a part and is now taking new forms which are harder to detect. Negotiations under way in the framework of the WTO can address these problems, facilitating greater trade and opportunities to spur economic growth. Some short-term prospects are improving with encouraging data coming from Europe, the US, Japan and China (Figure 3). Reports on private sector activities from purchasing managers (purchasing managers' indices, which give some indication about future activity), shipping rates, automobile production and other leading indicators, suggest that the economic slowdown has bottomed out and that a tentative recovery is underway.

The European sovereign debt crisis has eased significantly since 2012, unemployment in the United States has fallen to 7.3% from a post-crisis high level of 10%, and the growth of GDP (gross domestic product, a measure of a country's output) in Japan has accelerated since the adoption of new fiscal and monetary policies [Jackson 2013]. Although large developing economies have slowed appreciably, the



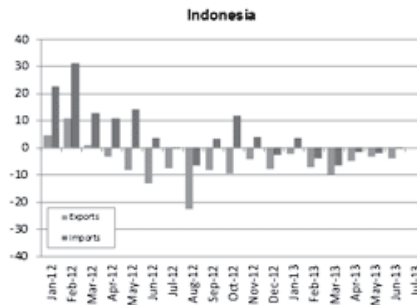
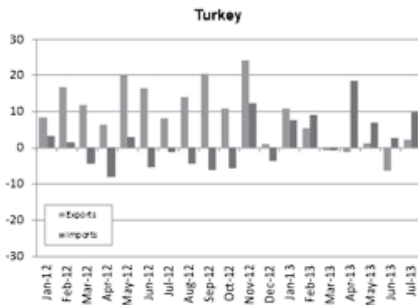
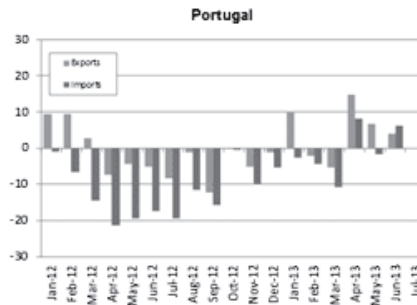
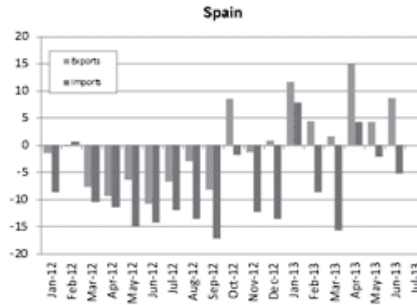
**Figure 3.** Merchandise exports and imports of selected economies, 2010Q1-2013Q2 (seasonally adjusted volume indices, 2010Q1=100).

Source: [WTO Secretariat 2013]



**Figure 4.** Merchandise exports and imports of selected economies, October 2011–July 2013 (year-on-year % change in current dollar values)

Sources: [IMF International Financial Statistics 2013].





latest figures from China on industrial production suggest that the country may be regaining some of its dynamism. On the other hand, India's economy is still in the midst of a sharp crisis.

Nethertheless, both extra-EU imports and trade between EU countries (i.e., intra-EU exports) have declined steadily since the middle of 2011, dropping around 2% year-on-year in the first half of 2013 (Figure 3). Since the EU (including intra-EU trade) accounts for fully 33% of world imports and 58% of developed economy imports, economic shocks will be strongly reflected in world aggregates there.

US exports and imports have been flat since the beginning of 2012, held down by weak external demand and slow growth at home (Figure 3). However, in the second quarter of 2013, exports jumped 2.2% compared to the previous quarter (9% when calculated as an annual rate), while imports advanced 1.0% (4% annualized), possibly indicating a turning point for US trade flows.

Interesting is also a situation of Japan on the export side (Figure 3). The sharp dip in exports in 2011 is linked to the earthquake and tsunami that devastated Japan in that year. The more recent slump beginning in 2012Q3 appears to be related to a diplomatic dispute between Japan and China that has soured trade relations between the two countries. By the second quarter of 2013, Japanese exports were little changed since the beginning of 2010, but imports rose around 20% over the same interval. The export performance of Japan may be erratic, but since it only makes up 4% of world exports and 9% of developed economy exports it has less of direct influence on broad aggregates.

Trade flows of developing Asia (which includes China) have maintained a steady pace of growth in recent years, but exports dipped 1.4% in the second quarter of 2013 compared to the first quarter (5.4% annualized) (Figure 3). This was due to a relatively sharp drop in the exports of China, which could partly be related to weak demand in China's trading partners, but could also reflect recent Chinese efforts to correct the misreporting of trade values. However, since trade data are not revised for earlier years, it is unclear whether the drop in the second quarter represents an actual decline in trade flows.

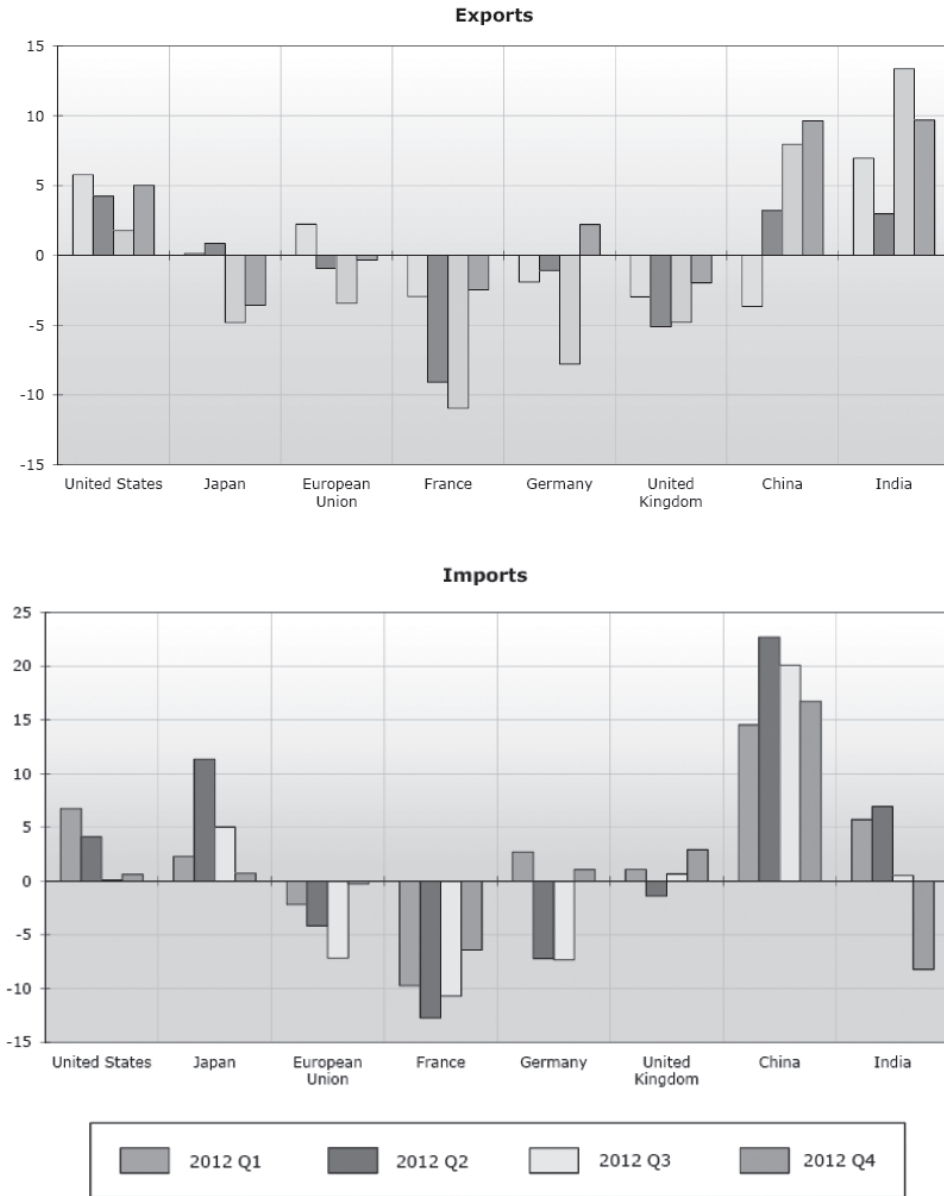
It must be emphasized that openness to trade in China is associated with higher incomes and growth and there is a need for new approaches to trade cooperation in the light of the forces that are currently re-shaping international business. A major factor was even more remarkable transformation of China, as market reforms opened up its economy to foreign trade and investment and unleashed an unprecedented growth dynamic that has continued with only minor slowdowns. In new circumstances for the development of the global economy and the global trade, the People Republic of China seems to be a production superpower, being able to change the world trade and influence the rise of global supply chains. In many areas it possesses comparative advantages. China may continue their development in electronics and increasingly in services.

The major trend in international trade which is the rise of a number of emerging economies and the associated increase in their shares in world trade must be also underlined [Jackson 2013]. Especially China but also India and Brazil have transformed the balance of power in the multilateral trading system [Jackson 2013]. Between 1980 and 2011, for example, China's share in world merchandise exports and imports increased tenfold, making the country the largest exporter of the world [Jackson 2013; Kupchan 2014].

Finally, Figure 4 shows year-over-year growth in merchandise trade for a wide selection of countries in current US dollar terms. These data are available through June, July or August 2013 depending on data availability. As such, they can provide an earlier indication of trade development in the third quarter compared to volume indices, which are generally less timely. It is worth noting that exports and imports of Germany recorded solid increases in June and July 2013, which could presage a turnaround in EU-wide trade flows.

It must be emphasized that although short-term data on trade in commercial services are more limited than existing data sets on merchandise trade, both display similar trends. The recent evolution of this type of trade is illustrated by Figure 5, which shows year-on-year growth in the dollar value of commercial services exports and imports for selected economies from 2012Q1 to 2012Q4. Year-on-year growth in commercial services exports remained positive in the United States throughout 2012 despite a slowdown in the third quarter. However, US services imports were flat in both Q3 and Q4.

The dollar value of Japan's exports of services dropped 5% year-on-year in 2012Q3, and remained 4% lower than the previous year's value in Q4. Import growth of Japan remained positive in all four quarters of 2012, but had dropped to just 1% by the fourth quarter. The dollar value of the European Union's commercial services exports declined in the last three quarters of 2012. Meanwhile, growth in services imports was negative in all four quarters. However, the declines in Q4 (0.3% for exports, 0.2% for imports) were barely discernible from zero. Growth in China's exports of commercial services increased from 8% in Q3 to 10% in Q4. At the same time, the country's imports of commercial services increased by 17% in Q4, down from 20% in Q3. Year-on-year growth rates for India's exports and imports of commercial services diverged strongly in the second half of 2012. Export growth jumped to 13% in Q3 before settling back to 10% in Q4. Meanwhile, import growth dropped to just 1% in Q3 from 7% in Q2 before contracting by 8% in Q4 [WT/TPR/OV/W/7 2013].



**Figure 5.** Commercial services exports and imports of selected economies, 2012Q1–2012Q4

Source: [WTO Secretariat 2013]

Trends in the composition of trade show that trade in services has grown faster than trade in goods over the last two decades [Krist 2013]. In this context

it is important how advances in information and communication technology have enabled a rapid expansion of services trade [Jackson 2013 (Figure 5)]. This trend might in future be spurred by rising energy costs. Moreover, the share of services in both manufacturing firms' inputs and outputs has increased. Digitalization and 3D printing are examples of the increasing grey zone between goods and services. Whether they are classified as one or the other is significant as different regulatory regimes might apply. With regard to natural resources, it shows that their price has increased and that the price of food products has become more volatile. An open question is how higher and more volatile agricultural commodity prices raise concerns regarding food security in developing countries [Eagleton-Pierce 2013] and how these prices influence the rise of global supply chains.

It can be observed that comparable development has occurred in foreign direct investment. Inflows into developing countries and outflows from these countries now represent a major share of total foreign direct investment (FDI) [Jackson 2013], and FDI between developing countries is rapidly expanding. Related to this development is the industrialization of developing countries and de-industrialization of developed countries which, once again, is closely interconnected with the global supply chains. However, this growth is limited to only a few economies. It has caused greater differences among developing countries, with growing emerging economies and struggling least-developed countries (LDCs).

Distributional effects of trade play an important role in the broader socioeconomic context. It is important to examine the extent to which the recent sharp increase in the unemployment rates of developed countries may be linked to trade and what this could mean for attitudes towards trade. While there is no conclusive evidence that trade contributes significantly to changes in long-run unemployment or in income inequality, public concerns about current levels of unemployment and income distribution in a number of countries are likely to have a bearing on trade policy-making.

Another ongoing trend is the increasing importance of consumer concerns (regarding the environment or food safety, for example) which has led to a proliferation of public policy measures that affect trade [WTO 2012b]. Global supply chains might exacerbate the issue when large firms impose private standards throughout their respective supply chains. A further trend is the fierce competition for scarce natural goods.

### **3.2. The impact of the rise of global supply chains on the political economy of trade and countries motivations for cooperating on trade policies**

The industrialization and spectacular growth of emerging economies, together with the fast expansion of services trade and of FDI, are inextricably related to the next intensive growth of production. The focus here will be on how the rise of global supply chains has had an impact on the political economy of trade and countries motivations for cooperating on trade policies [Jones 2015]. There is both a theory

and evidence suggesting that participation in global supply chains tends to strengthen anti-protectionist forces [Jones 2015]. These forces have helped to drive some multilateral trade opening in the WTO [Jackson 2013], both in specific sectoral as well as in broader accession-related negotiations (with 32 governments joining the WTO since its creation in April 15, 1995 in Marrakesh) [Jackson 2013]. The main impact, however, has been on unilateral tariff reductions (mostly among developing countries) and the proliferation of preferential trade agreements (PTAs) and bilateral investment treaties [WTO 2011a; Krist 2013; Jones 2015; Deudney 2014]. A considerable amount of trade opening has thus taken place outside the WTO.

The internationalization of supply chains was very important for fast economic development and industrialization of developing countries. Before the emergence of supply chains – and the information and communication technology (ICT) revolution that underpinned it – industrialization involved building a strong industrial base often behind the protection of tariffs and other NTMs [Jupill et al. 2013]. The unbundling of global production made it possible for countries to industrialize by joining international supply chains [Jones 2015]. This process also changed the political economy of trade policy, creating in many developing countries a strong incentive to undertake unilateral tariff reductions.

There are three mechanisms through which production unbundling can lead to unilateral tariff reductions. First, the offshoring of production is likely to alter lobbying over trade policy in the host country. The relocation of production transforms importers of the products concerned into exporters. As a result, lobbying in favour of import tariffs on these goods decreases and pressure to reduce upstream tariffs increases. This effect, however, is more limited in cases where governments set up export processing zones to exploit the growing industrialization opportunities offered by supply chains [Jones 2015]. Secondly, a fall in coordination and communication costs may also have an impact on lobbying. With high trade costs, producers of final products may support infant industry protection of intermediate products if they believe that it could lower the price of domestically produced intermediate goods compared with imports. However, a fall in coordination and communication costs can break the coalition of interests behind high trade barriers, and lead downstream producers to lobby against tariffs on intermediate goods. Thirdly, offshoring improves the competitiveness of developed countries' products by reducing their costs, thus undermining import substitution strategies in developing countries [Jackson 2013]. Developing countries governments may either respond by lowering the tariffs on final goods, or, alternatively, by lowering upstream tariffs to improve the competitiveness of domestic final goods.

Empirical evidence seems to confirm that lobbying is indeed an important determinant of trade policy. In particular, there is evidence suggesting that supply chains can explain why the recent financial crisis did not lead to significant protectionism despite the fact that many countries had prudence in their applied

tariffs, meaning they could raise them without violating their WTO commitments [Jones 2015].

While unilateral tariff reductions have clearly been a positive step in the direction of more open trade, they may also have complicated multilateral, reciprocity based tariff reductions in the WTO. It must be underlined that developing countries have already significantly reduced their applied tariffs, giving developed countries exporters less to fight for in multilateral negotiations [Jackson 2013]. Developed countries exporters also see less value in asking developing countries to commit to lower tariffs because they do not believe that developing countries governments have strong incentives to raise them [Jones 2015].

It is interesting to underline that foreign investment may lead governments to unilaterally reduce tariffs, thereby lowering the incentive to exchange tariff reductions in the WTO. Existing theoretical work suggests that a government's optimal tariff decreases when its constituents hold an ownership stake in a foreign market, leaving it with less incentive to manipulate the terms of trade [Krist 2013]. Extending terms of trade model of trade agreements to account for international ownership, shows that by eroding large countries' motives to improve terms of trade by raising tariffs, international ownership can also reduce their incentive to sign trade agreements. It must be emphasized that calculations of reciprocity in tariff negotiations should consider patterns of international ownership as well as trade flows.

Unilateral tariff reductions, in as much as they were not bound in the WTO, have tended to increase the level of prudence in developing countries' tariffs – i.e. the difference between the level at which tariffs are bound and the level at which they are applied – which has in turn complicated the Doha Development Agenda (DDA) non-agricultural market access negotiations [Jones 2015]. In the DDA's early days, a discussion focused on the question of whether and how credit should be granted for autonomous trade opening [Mattoo, Olarreaga 2001]. Even when WTO members gave their consent to negotiate reductions of their bound, rather than applied, tariff rates, the underlying problem did not disappear but merely reappeared under a different guise. Members started arguing about the value of reductions of bound rates that did not imply equivalent reductions of the corresponding applied rate.

The changing dynamics of trade policy brought about by the internationalization of supply chains have not only resulted in unilateral tariff reductions but also in negotiated tariff reductions in the WTO (e.g. the Information Technology Agreement) and, even more significantly, in fast-proliferating PTAs [WTO 2011a; Jones 2015]. While in many cases, particularly in Asia, these PTAs are aimed at mutual integration and rule-making, they typically also include a traditional tariff component. In other cases, such as PTAs in Africa, tariffs are central to the agreements. Preferential tariffs raise several challenges for the multilateral trading system. One concern, extensively discussed in the economic literature, on the systemic effects of preferential tariff reductions relates to the linkages between discriminatory and nondiscriminatory

tariff reductions. A number of different mechanisms have been identified through which PTAs either foster or hinder multilateral trade opening. While the evidence on the relative size of these effects is inconclusive, there is a shared sense among observers that the coherence between PTAs and the WTO needs to be improved [WTO 2011a; Krist 2013; Jones 2015].

### **3.3. The rise of global supply chains and increasing importance of bilateral agreements in the foreign trade policy**

Theoretical approaches that provide a rationale for trade agreements [Krist 2013; Jones 2015] offer interesting insights into the impact of emerging new trading powers [Jackson 2013]. An early contribution in this area was made by Krasner [1976]. He analyses the linkage between particular distributions of potential economic power, defined by the size and level of development of individual states, and the structure of the international trading system, defined in terms of openness. He argues that while a hegemonic system (in which one dominant player holds smaller states away) is likely to lead to an open trading system, a system composed of a few very large but unequally developed states is likely to lead to a closed structure [Kirshner 2013]. However, since Krasner the open economy politics literature has been largely silent on how the rise of emerging powers in the 21st century is affecting international economic relations.

The fact that governments respond to the internationalization of supply chains by signing deep integration agreements at the regional level is broadly consistent with the limited amount of theory available on this topic [WTO 2012b; Jones 2015]. It is important to underline that deep rather than shallow integration agreements and more individualized rules are needed to address the policy problems associated with the internationalization of supply chains [Antràs, Staiger 2012]. Countries intensively involved in supply chain trade may find it increasingly difficult to rely on broad GATT/WTO principles alone to address their trade-related problems, and may turn to more narrowly focused PTAs to achieve the deep and customized bargains they need [Jones 2015].

An important result of the terms of trade theory [Krist 2013] is that shallow integration, i.e. tariff commitments, can achieve internationally efficient policies [Bagwell, Staiger 1999]. However, Antràs and Staiger [2012] find that this result does not hold in the presence of offshoring and, more generally, when international prices are determined through bargaining. If producers are locked into trade relationships with foreign firms – and prices are set via bargaining – there are incentives to manipulate the markets of both the intermediate and the final product to shift the bargaining surplus. Governments might also try to pursue redistributive goals via trading partner's policies.

Deep integration agreements are needed to resist these pressures. However, this in turn means that negotiations must cover a wider array of internal/domestic measures that are typically covered by trade agreements [Krist 2013]. Thus, the rise

of offshoring raises both a direct and an indirect challenge for the WTO [Jackson 2013]. It puts direct pressure on the WTO to evolve towards deeper integration and more individualized agreements. It also puts indirect pressure on the WTO to evolve in this direction, as member governments increasingly turn to PTAs to solve their trade-related problems.

It is interesting to explore the effect of proliferating deep regional agreements on coherence in international trade governance [Jackson 2013]. The WTO has suggested that new international trade rules are being negotiated and decided outside the WTO where power differences are greater and where the principles of non-discrimination and reciprocity are absent. It has also argued that PTAs are here to stay. Governments will need to ensure that regional agreements and the multilateral trading system are complementary and that multilateral disciplines minimize any negative effects from PTAs [Krist 2013]. While the available literature suggests that deep integration rules are often non-discriminatory – for instance, provisions in the services or competition policy areas are often extended to non-members – certain provisions in regional agreements can contain discriminatory aspects that clash with the multilateral trading system. It has been shown that PTAs, which make it more difficult to apply contingency measures to PTA partners, may divert protectionist measures towards non-members [Prusa, Teh 2010].

Deep provisions can also have a number of adverse systemic effects. For example, the important effects of regional regulatory harmonization can make it more difficult to multilateralize rules. PTAs may not include third-party most-favoured nation (MFN) clauses, thus effectively discriminating against other countries. Developed countries exporters may view bilateral and regional rather than multilateral agreements as faster and easier routes for achieving their objectives, further weakening the principle of non-discrimination.

With regard to services supply chains, some argue that their growth creates an additional need to re-examine and modernize current rules for services trade, as these rules were designed for a world where services were exported as final products from national firms, not a world where multiple firms supply stages of services production from multiple locations. Recent research on how differences in firms have an impact on trade policies reveals a related concern. Ciuriak et al. [2011] point at another difference between deep integration at the regional and the multilateral level. While heterogeneous firms trade models suggest that more importance should be granted to extensive than to intensive margin responses to trade opening, there is evidence suggesting that PTAs have positive effects on the intensive margin and negative effects on the extensive margin, whereas the opposite is true of opening in the multilateral context.



## 4. Results and findings

During the rise of global supply chains the development of various firm models has made it possible to explore the effects of differences in firms on the political economy of trade. It must be underlined that trade opening has two opposing effects on domestic firms within the same industry. First, the cost of exporting decreases, which allows more firms to export and increases the sales of established exporters. Secondly, competition increases, which harms domestic firms. Which of these channels dominates for an individual firm depends on firm characteristics, such as size. As a result, lobbying competition arises not only between sectors but also within sectors in which some firms benefit and some lose due to trade. This effect might especially arise in the context of fixed costs because they rise entry costs and thereby shield existing producers or exporters from competition.

The least and most productive firms during the rise of global supply chains oppose more open trade when it comes to a reduction of NTMs because the competition effect outweighs the sales effect. It is the firms close to the export cut-off, i.e. those that just break even taking into account the costs of exporting, which benefit from trade opening and support it. We can use these results to explain a persistent feature of trade policy, namely the reluctance to accept opening trade in homogeneous goods and during the rise of global supply chains. The emergence of supply chains exacerbates the issue and might weaken reciprocity in trade negotiations. It must be underlined that as the largest firms are engaged in global production networks, they support NTMs to protect their foreign affiliates. The mechanism is similar to the one described above: multinational affiliates have fewer problems to overcome fixed exporting costs compared with less productive competitors.

In the conditions of the rise of global supply chains large firms promote NTMs not only to reduce domestic competition but also to shield their foreign affiliates from export competition. One implication of the argument is that market access based rules of reciprocity might be insufficient to address the distributional effects of NTMs because reciprocal tariff concessions cannot account for them. Overall, these theoretical studies suggest that while the largest firms benefit from tariff reductions, they may not support the reduction of NTMs that have an effect on fixed costs. Large firms can more easily pay the sunk costs of adapting products to different specifications and benefit afterwards from less competition.

## 5. Conclusion

The need for firms to organize their supply chains across different countries has led to a demand for regional agreements that cover more than preferential tariffs. The harmonization of standards and rules on investment, intellectual property and services has become a standard part of new trade agreements. The differences

among firms involved in trade are also important for the future development. The picture that arises from the trade is that even if many firms are indirectly involved in trade-related activities, only relatively few are exporting or importing and these firms tend to be larger and more productive than others. Such firms also have a role in technology advancement and the diffusion of know-how through supply chains.

It must be underlined that if trade during the rise of global supply chains is perceived by the majority of voters as causing unemployment and/or increasing inequality, governments could refrain from pursuing further trade opening and may even be tempted by protectionism. With regard to increased pressure for protectionism, there is some evidence that the WTO has played a significant role in recent years in preventing protectionist barriers. WTO rules and governments commitments, together with reinforced monitoring mechanisms, may account at least in part for the limited protectionist reactions to the crisis. One problem that may arise in the future is if governments turn to measures that are currently undisciplined or untested by WTO rules. Pressure on the WTO to impose or apply disciplines in new areas and in the conditions of rise of global supply chains would increase, as is the case now with regard to exchange rate misalignments.

Another possibility would be for governments to use public policies for protectionist purposes more intensively. With regard to trade negotiations, focusing exclusively on the efficiency effect of trade opening may no longer be possible. Distribution and labour-market effects will also need to be considered and accompanying measures may need to be proposed in order to win the support of the majority of voters for open trade especially in the conditions of the rise of global supply chains. Although most accompanying measures fall outside the remit of the WTO, mechanisms available under the WTO to facilitate adjustment, such as implementation periods and flexibilities, may have a role to play.

Now in the context of the rise of global supply chains it is time to consider the concept of new WTO model development. Under this approach, countries willing to strengthen the trade rules regarding currency manipulation, state-owned enterprises, and other loopholes in the current rules, and to develop rules for the new issues such as digital commerce and regulatory coherence, would negotiate FTA among themselves that would supplement the current WTO system. The negotiations for the Trans-Pacific Partnership (TPP) agreement and the Trans-Atlantic Trade and Investment Partnership (TTIP) could provide the basis for new WTO Plus system development.

Negotiations for the TPP and the TTIP could be vehicles for establishing a WTO Plus system. These agreements, in the conditions of the rise of global supply chains, establish effective rules regarding neomercantilist practices and eschew special interest provisions. Such a WTO Plus system would both open markets for countries willing to accept strengthened trade rules and put pressure on nonparticipating countries to further open their markets and adopt similar rules in a future multilateral trade round in the framework of the WTO.

It has to be emphasized that in the new WTO, the diverse membership must find common ground on new areas of negotiation especially in the conditions of the rise of global supply chains. The process of these negotiations must begin with domestic adjustment and development of trade policies, and continue by harnessing all the available incentives, from RTAs to aid-for-trade, and by new forms of cooperation between developed, developing, and emerging countries like China, India, Brazil, Mexico, South Africa. The economic incentives for multilateral trade liberalization during the rise of global supply chains remain strong, and the new international economy of more broadly shared economic power represents the major victory for its success in the framework of the WTO multilateral trade system, but the power in the WTO has symbolic character.

During the rise of global supply chains, institutional reforms will be necessary to restore the WTO's ability to complete multilateral trade agreements, including a more flexible application of the consensus rule, common understanding among all developed and developing members about the limits of domestic policy space that is subject to negotiation, and clearer rules on the reciprocity of bilateral and regional trade agreements, which have emerged as the alternative to multilateral WTO agreements, and which present a threat to the WTO's relevance in trade negotiations, but also an opportunity to new and deeper international trade integration in future WTO agreements. Aid for trade may also play an instrumental role in bringing more developing countries into WTO disciplines. It has to be emphasized that WTO members must develop new ways especially with developing countries, by financial, economic and trade aid for them also because of the importance of agriculture, and the rise of global supply chains, to find common ground in order to negotiate for mutual gains from foreign trade and first of all from the new models of foreign trade policy.

## References

- Antràs P., Staiger R.W., 2012, *Trade agreements and the nature of price determination*", American Economic Review Papers and Proceedings, No. 102 (3), pp. 470-476.
- Bagwell K., Staiger R.W., 1999, *Domestic Policies, National Sovereignty and International Economic Institutions*, NBER Working Papers, No. 7293, National Bureau of Economic Research, Inc.
- Baldwin R., 2012, *WTO 2.0. Global governance of supply chain trade*, Policy Insight, No. 64, Centre for Economic Policy Research, December.
- Ciuriak D., Lapham B., Wolfe R., Collins-Williams T., Curtis J.M., 2011, *Firms in international trade: Towards a new trade policy*, SSRN, Electronic Journal, November.
- Deudney D., 2014, *Hegemony, Nuclear Weapons, and Liberal Hegemony*, [in:] *Power, Order, and Change in World Politics*, Ikenberry G.J. (ed.), Cambridge University Press, Cambridge.
- Eagleton-Pierce M., 2013, *Symbolic Power in the World Trade Organization*, Oxford University Press, Oxford.

- IMF International Financial Statistics, 2013, Global Trade Information Services GTA database, national statistics, [http://www.wto.org/english/news\\_e/pres13\\_e/pr694\\_e.htm](http://www.wto.org/english/news_e/pres13_e/pr694_e.htm) (access 24.10.2013).
- Jackson R.J., 2013, *Global Politics in the 21<sup>st</sup> Century*, Cambridge University Press, New York.
- Jones K., 2015, *Reconstructing the World Trade Organization for 21<sup>st</sup> Century, An Institutional Approach*, Oxford University Press, Oxford, New York.
- Jupill W., Mattli W., Snidal D., 2013, *Institutional Choice and Global Commerce*, Cambridge University Press, New York.
- Kirshner O., 2013, *American Trade Politics and the Triumph of Globalism*, Routledge Taylore & Francis Group, New York, London.
- Krasner S.D., 1976, *State power and the structure of international trade.*, *World Politics*, No. 28, pp. 317-347.
- Krist W., 2013, *Globalization and America's Trade Agreements*, John Hopkins University Press, Baltimore.
- Krugman P., 1990, *Increasing returns and economic geography*, NBER Working Paper, No. 3275, March.
- Kupchan Ch.A., 2014, *Unpacking Hegemony: The Social Foundations of Hierarchical Order*, [in:] *Power, Order, and Change in World Politics*, Ikenberry G.J. (ed.), Cambridge University Press, Cambridge.
- Mattoo A., Olarreaga M., 2001, *Should credit be given for autonomous liberalization in multilateral trade negotiation?*, CEPR Discussion Papers, no. 2821.
- Prusa T.J., Teh R., 2010, *Protection reduction and diversion: PTAs and the incidence of antidumping disputes*, NBER Working Papers, no. 16276, National Bureau of Economic Research, Inc.
- The 2011 World Trade Report*, WTO, 2011a.
- The 2011 World Trade Report*, WTO, 2011b.
- The 2013 World Trade Report*, WTO, 2013.
- WT/TPR/OV/W/7, 2013.
- WTO-2012b.
- WTO Secretariat, 2013, WTO Secretariat estimates, based on data compiled from IMF International Financial Statistics; Eurostat Comext Database; Global Trade Atlas; and national statistics, [http://www.wto.org/english/news\\_e/pres13\\_e/pr694\\_e.htm](http://www.wto.org/english/news_e/pres13_e/pr694_e.htm) (access 24.10.2013).