Vision Europe Summit

Impulse paper: Economic globalisation – Who's winning, who's losing out?

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Contents

Executive summary

There are two main consequences which have arisen from the increasing cross-border exchange of goods, labour, capital and technologies:

- One is a **better distribution of scarce production factors**. This has resulted in **positive growth effects** for the **economies** of all countries involved. Furthermore, consumers benefit from lower prices and a larger variety of consumer goods.
- However, the other is that there have been **changes** in **scarcity conditions** within the individual economies. This leads to price changes in each country – both for material goods and services, as well as for the production factors of labour and capital. As a result, there are **winners** and **losers** of globalisation **within** each country.

In **advanced economies**, the international division of labour and the associated cross-border trade activities lead to an increase in gross domestic product (GDP) in all of the economies involved. If **real per capita gross domestic product** is taken as an indicator for globalisation-driven growth, then it is the advanced economies such as Japan, Switzerland, Finland, Denmark, Ireland and Germany that benefited the most from advancing globalisation between 1990 and 2014. GDP growth attributable to globalisation has been lowest in absolute terms in the **BRIC countries** (Brazil, Russia, India and China). This is due above all to the fact that this indicator was so low for these countries at the beginning of the period under review. **Eastern European economies** occupy a mid-level position in the ranking of globalisation winners, when they are classified in this way.

In **emerging** and **developing countries** too, there has been a positive impact on growth from advancing globalisation. In particular, these effects are reflected in the steep reduction in absolute poverty in Asia, South America and Eastern Europe. By contrast, for the least developed economies in **Africa**, the results are less positive when the pros and cons of globalisation are weighed up. In these countries between 1990 and 2013, the share of the overall population living in poverty decreased from 54 percent to 41 percent only. The gap in per capita GDP is widening between Africa and the rest of the world – not only in absolute terms, but also in relative terms. From this viewpoint, African countries have been **left behind** by globalisation.

At the same time, the market processes of economic globalisation produce **losers** as well as winners **in every country**. In **advanced economies**, it is workers who lose out, in particular the low-qualified and those employed in industries which are competing most intensely with emerging countries (especially China and Eastern European economies). In **emerging economies**, the relative scarce factor (capital) suffers from lower demand.

This means that although the advancing globalisation and international division of labour has boosted growth in advanced economies, over recent years criticism of globalisation has increased considerably in these countries. I believe there are **three main reasons** for this:

1. Up to and including the early 1990s, international trade mostly took place among industrialized countries which all enjoyed relatively high wages. It was only when the Iron Curtain was lifted (**1989**), China joined the World Trade Organization (**2001**) and Eastern European countries acceded to the European Union (**2004**) that competition from low-wage countries increased. As a result, it is only at that time that the employment and wage-reducing effects of the international division of labour have become evident to an appreciable extent.
2. Another main trigger for the growing criticism of globalisation is the **outbreak of the economic and financial crisis** following the Lehman bankruptcy in the autumn of 2008. Three aspects are significant here. First: helplessness in the face of **anonymous, globalised market forces**, which caused the ripples from a local event to quickly escalate into a shockwave across the globe. Second: the fact that after years of cuts in state spending and payments from social security systems, **billions** in cash were **suddenly** available to save the banking and financial systems. Third: the economic slump led to an increase in **unemployment** worldwide, so that the unemployed faced a cut in their income and **downward pressure** on wages arose from the declining demand for labour.
3. In my opinion, the final trigger for growing anti-globalisation was the high number of **refugees** moving into Europe. This has confronted us with the fact that opening up borders – whether for people or trade – changes the scarcity conditions in all the countries involved, automatically creating winners and losers in the process.

The deciding factor for how globalisation should be shaped in the future is whether the **dividends of globalisation** can be distributed in advanced economies in such a way that globalisation's losers can also benefit from the resulting gains in growth. This requires policies that reduce income inequality and strengthen social security systems, in order to alleviate the citizens' fear of change. In addition to compensating for lost income, it is also important to implement further training for the unemployed in order to facilitate their transition into sectors which have benefited from globalisation.

A cross-society consensus has to be reached on how exactly those policy instruments should be designed – both in terms of expenditure and income. This consensus must take into account unintended effects and reciprocal effects as well. However, in the first instance, the deciding factor will be a **fundamental commitment across society** to place greater emphasis in policy-making on **those who have lost out under globalisation**. In the absence of some form of compensation, serious social and political tensions will continue to exist, threatening prosperity across the economy as a whole.

1. Introduction

The aim of this paper is to identify winners and losers of economic globalisation. The focus lies on the income and employment effects in advanced economies and the implications of these effects for the growing criticism of globalisation in these countries.

In this paper, **economic globalisation** is understood as being the economic interconnection with the global economy as a whole, whereby this interdependence relates both to the exchange of **production factors** (labour, capital, technologies, know-how) and the exchange of **products** (material goods and services, finished and unfinished products, consumer and capital goods).

Increasing globalisation of the economy basically means that there is a more intensive **cross-border exchange** of material goods, services, labour, capital and technology. International trade often takes place if the **scarcity conditions** – and therefore the **prices** – **vary** across the countries involved.[1]

- **International trade** takes place if the prices for consumer goods or intermediate products vary across different countries.
- It is worthwhile to **relocate production sites** if the production costs are different in the countries involved.
- **Investments** are made if yields abroad are higher than they are domestically.
- **Migration** takes place if living conditions – particularly earnings opportunities – vary across different countries.

This has two main consequences:

- One is a **better distribution of scarce production factors**. This has resulted – ceteris paribus – in **positive growth effects** for the **economies** of all the countries involved.
- However, the other is that there have been **changes** in **scarcity conditions** within individual economies. For example, if the production of goods which requires low-qualified workers in particular is relocated to low-wage countries, the income and employment opportunities for low-qualified persons decline in industrialized countries, such as Germany. As a result, there will be globalisation **winners** and **losers within** each country.

This paper is structured as follows: After a brief description of the most important growth effects of advancing globalisation (**Section 2**), the growth effects attributable to globalisation in industrialized countries and emerging countries are described based on the results of the Bertelsmann Stiftung's Globalisation Report 2016 (**Section 3**). **Section 4** is concerned with the impact of globalisation on those emerging and developing countries which are not included in the Globalisation Report. The income and employment effects that have arisen from globalisation in advanced economies are

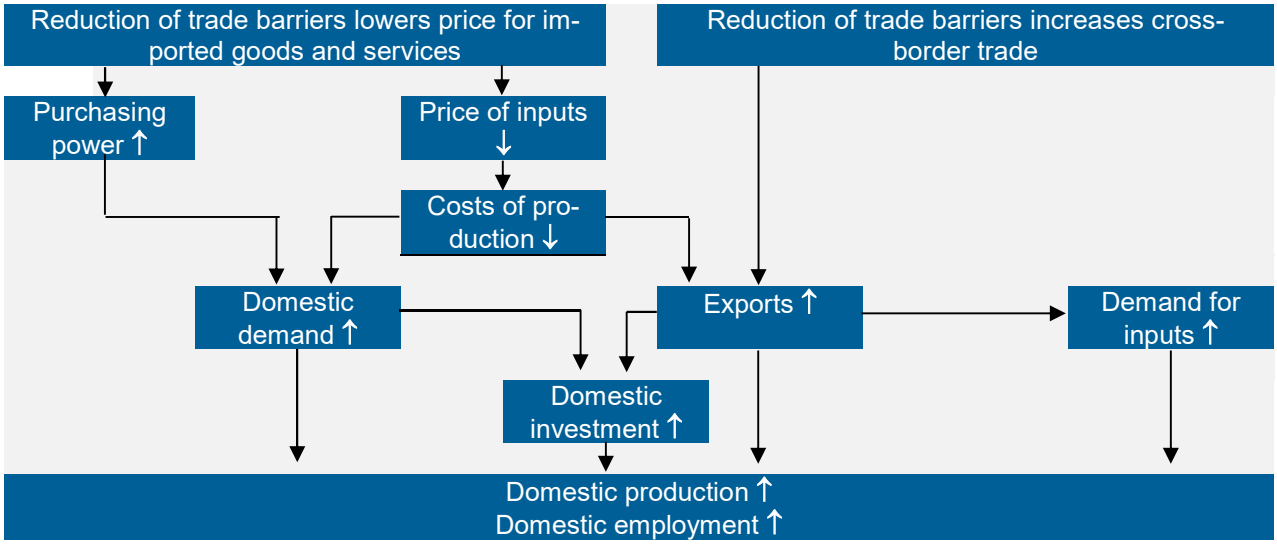
[1] Apart from trade due to differences in factor endowment, cross-border trade may also issue from differences in consumer preferences and economies of scale.

described in **Section 5**. **Section 6** deals with the role of politics and institutions in shaping globalisation. **Section 7** analyses the significance of income and employment developments for the rise of anti-globalisation in the advanced economies. In **Section 8**, potential future globalisation trends are presented, along with open questions arising therefrom.

2. Growth effects from economic globalisation: Key considerations

Although economic globalisation is much more than just cross-border trade, foreign trade is one core element of globalisation. Hence, an intensification of economic globalisation between two industrialized countries – e.g. Germany and Romania - means a reduction of trade barriers, i.e. tariffs and non-tariff trade restrictions. As a result of the reduction of these barriers, the costs of cross-border trade **fall** and so do the **market prices** for internationally traded goods. This results in positive effects for economic growth and employment in both countries.[2] The growth-generating effects of reducing trade barriers primarily consist of price drops, which increase consumer purchasing power and with that, consumption; they also consist of an increase in exports and investment, which pay off because both consumer demand and exports grow (see Fig. 1).

Figure 1. Diagram of the relationship between reduced trade barriers and economic growth



Source: author's own diagram.

The growth effects described in Fig. 1 result to a great extent from an increase in cross-border trade between the countries involved; in turn, this increase arises from **reductions in the cost of trade** (static growth effects).

In addition, economic integration also leads to an **increase in innovation and productivity,** which in turn generates a reduction in production costs and the price of the goods concerned (dynamic growth effects).

[2] Employment effects might be different if we look at cross-border trade between an advanced economy and an emerging economy. I will return to this point in section 5.1.

- The reduction of trade barriers in international trade means that companies are able to produce for a larger market. This allows for the **advantages of mass production** to be exploited, leading to lower unit costs and lower prices, so that consumers' purchasing power rises.
- Increasing trade between countries increases **competition** between them. Companies are forced to reduce their production costs through innovation and technical advancements, in order to remain competitive on the international stage. When **costs are reduced** via **technical advancements**, this leads to an increase in productivity.[3] This implies that the quantity of goods which can be produced with a given quantity of production factors increases, so the economy grows. At the same time, prices fall due to technical progress, which in turn increases domestic consumer demand for goods.

Where there is far-reaching economic integration, which also allows **production factors** to be exchanged freely across borders, productivity will increase further. A high level of cross-border mobility of labour and capital results in a situation whereby the available production factors can be deployed where they can create the greatest added value. This more targeted deployment of production factors improves productivity and creates an additional driver for growth, via falling prices and higher international competitiveness.

Static and dynamic **growth effects** arising in the course of greater economic integration in the countries involved **mutually reinforce** each other. For example, if production and employment increase in Germany, the demand for goods and services will increase among German citizens. This increasing demand will include products imported from abroad too, leading to increased production, employment and earnings abroad. And the increased economic growth abroad will ultimately lead to an increase in German exports to those countries.

Apart from the growth effects (defined as an increase in GDP) of economic globalisation, it should be emphasized that cross-border trade has positive implications for **consumers**. Due to the import of cheaper products, consumers pay less for these goods and thus obtain gains in terms of purchasing power. In addition, they have access to a larger variety of products (see for example Amiti et al 2017).

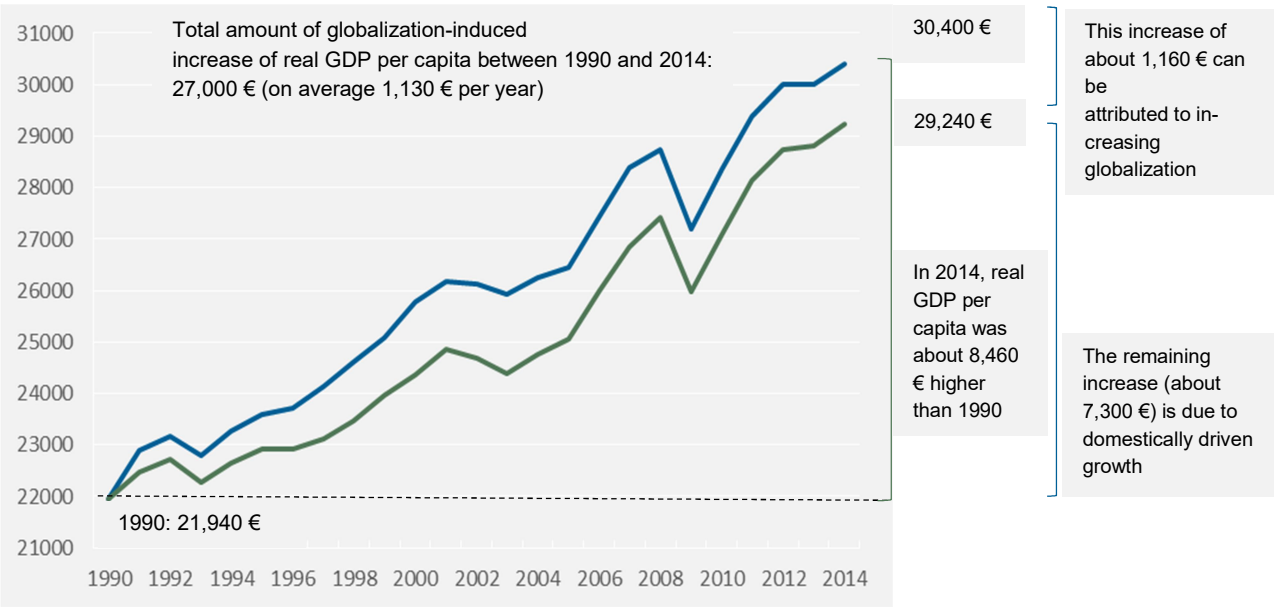
[3] Various studies show that trade openness and increased international competition have a positive effect on productivity – in industrialized countries as well as in emerging countries. See for example Chen, Imds and Scott 2006, Choudhri and Hakura 2000, Nataraj 2011, Wong 2006.

3. Empirical analysis of growth effects from globalisation

3.1 Globalisation and growth

The Bertelsmann Stiftung has demonstrated in the **Globalisation Report 2016** (see Bertelsmann Stiftung 2016a) that the inter-connections described in Section 2 are not merely theories. The economic development of **Germany** provides an **example** of the growth-generating effects of advancing globalisation (for methodological details see box 1). In this case, globalisation-induced growth in GDP per capita amounted to €27,000 between 1990 and 2014. If this gain in GDP is distributed across the 24-year period, then advancing globalisation has increased GDP per capita in Germany on average by €1,130 annually (see Fig. 2).

Figure 2. The development in real GDP per capita in Germany, with and without increasing globalization



Source: Bertelsmann Stiftung 2016a.

This calculation was carried out for all 42 industrialized and emerging countries under review in the report.[4] All of those countries were able to achieve globalisation-induced growth in GDP (see Fig.

[4] According to the classification of the International Monetary Fund (see IMF 2017: 178), 29 countries are advanced economies (Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Netherlands, New Zealand, Norway, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, United Kingdom, United States). The remaining 13 countries are emerging and developing economies (Argentina, Brazil, Bulgaria, Chile, China, Hungary, India, Mexico, Poland, Romania, Russia, South Africa, Turkey). Due to lack of data necessary for the calculations, other countries could not be included, especially no least developed economies.

3). When these calculations were made, it was found that growth in absolute terms[5] was lowest in the **BRIC countries**. There are two main reasons for these low gains:

- Most important is the low initial level of GDP per capita. For example, if GDP per capita starts at a level of €1,000, then a ten percent increase will lead to an extra €100. If GDP per capita is €10,000, even if growth is only two percent, there will be a greater increase in absolute growth of €200.
- Secondly, the level of globalisation expressed by the globalisation index is relatively low in these countries. China, for example, has many restrictions concerning international trade as well as capital controls and other limitations of international economic interconnections. Furthermore, for reasons of international comparison, all indicators of economic cross-border transactions (trade in goods, trade in services, foreign direct investment, portfolio investments) are expressed as percentages of GDP. Therefore China ranks at the bottom of individual indicators such as direct investment, portfolio investments and trade in services (see Bertelsmann Stiftung 2016a: 11). China is thus not making full use of potential gains from globalisation. However it should be noted that large countries such as the United States usually have a lower level of international economic interconnections by virtue of a large domestic market, which decreases dependence on imports and exports. For this reason, China will never achieve index values such as The Netherlands or Ireland.

Box 1: Methodological details of the Globalisation Report 2016

For the purpose of the Globalisation Report, increases in globalisation are measured using the so-called "Globalisation Index", which is closely aligned with the KOF Index of Globalisation created by the Swiss Federal Institute of Technology (ETH) in Zurich (see Dreher 2006). In addition to indicators on economic globalisation, this index also includes aspects of social globalisation (tourism, migration) and political globalisation (institutionalized interconnectedness, foreign relations, etc.). The index used in the Globalisation Report also includes the KOF Index of Globalisation's sub-indexes of social and political aspects of globalisation, but gives them less weight. The economy sub-index takes into account transaction volumes such as trade or investment on the one hand, and transaction limitations such as duties, taxes or capital controls on the other. Based on these data, a globalisation index is drawn up for each country and each year, with scores between 0 and 100. The more points on the index a country has, the more interconnected that country is with others in the world. The "Globalisation Report 2016" examines to what extent 42 advanced economies and emerging countries benefited from increasing globalisation between 1990 and 2014. According to the econometric calculations of the report, an increase of one point on the globalisation index led to an increase of 0.31 percentage points in the growth rate for real GDP per inhabitant.

[5] The Globalisation Report 2016 works with GDP per capita in absolute terms, because this indicator is the standard indicator in economic growth models and because GDP per capita is crucial for material prosperity and living standards.

3.2 Globalisation and growth in Eastern Europe

In 1990, most of the Eastern European countries had a relatively low level of international interconnection. Back then, countries such as Romania and Bulgaria were at the bottom of the ranking of interconnected countries according to the index used by the Globalisation Report 2016. Bulgaria, for example, started with an index value of 28.6 in 1990. Romania scored even lower with 21.4. Until 2007, the year before the Lehman collapse, both countries saw a sharp increase in their globalisation index scores. Bulgaria reached an index value of 66 in 2007, while Romania achieved 60 index points. Hence both countries had more than **doubled** their **globalisation index** scores. The same holds true for almost all Eastern European countries, except Russia. Indeed, it was Eastern European countries that recorded the **largest rises** in the **globalisation ranking** between 1990 and 2014 (see table 1).

Table 1. Countries with the largest increase in the globalization ranking between 1990 and 2014

Country	Ranking 1990	Ranking 2014	Change of rank
Hungary	22	7	+ 15
Bulgaria	36	22	+ 14
Estonia	25	14	+ 11
Romania	41	30	+ 11
Portugal	20	11	+ 9
Slovenia	29	24	+ 5
Finland	14	10	+ 4
Slovakia	21	17	+ 4
Austria	8	5	+ 3
Denmark	9	6	+ 3

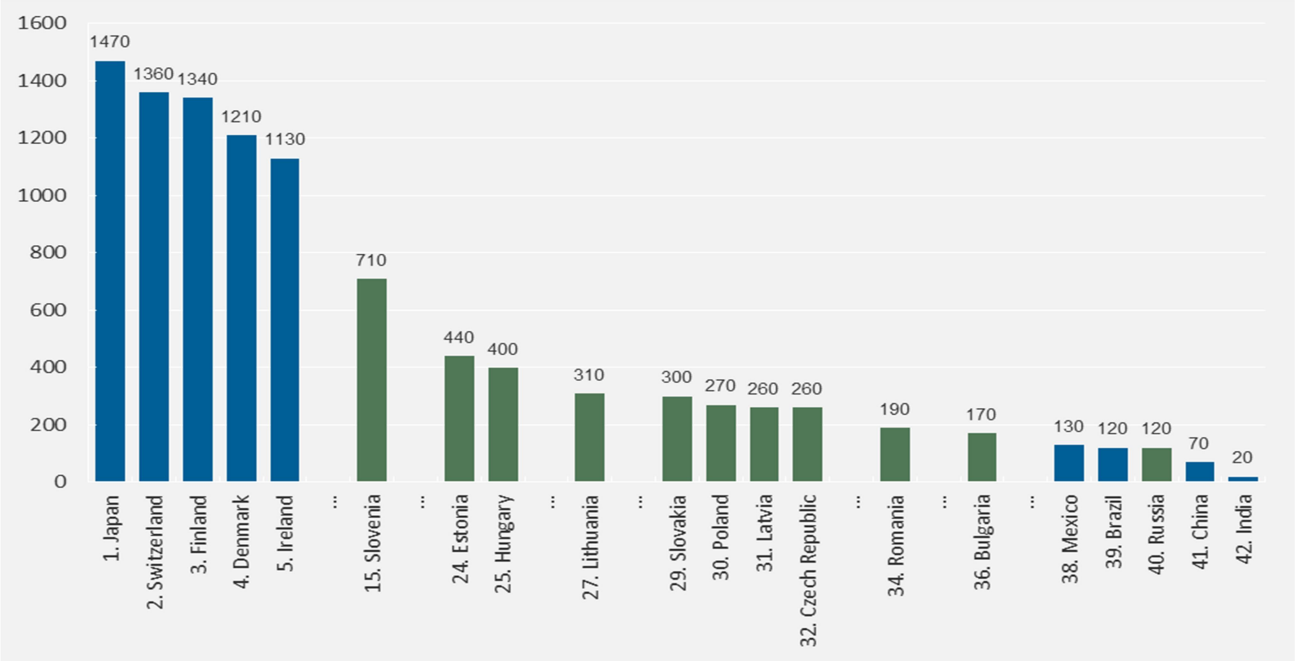
Source: Bertelsmann Stiftung 2016a.

Due to the strong rise in global interconnectedness, all Eastern European countries have shown significant increases in real GDP per capita. Nevertheless, compared to the globalisation-induced GDP increases in advanced economies, their absolute gains are relatively low: for most of the Eastern European countries, the annual gain in real GDP per capita during the period 1990 to 2014 is between €200 and €440. This is much lower than in highly developed countries such as Japan and Switzerland, where these gains are about €1,400 on average per person and year (see figure 3). Russia has the lowest gains. Apart from the low initial level of GDP per capita in 1990, this result is also due to the stagnant globalisation of Russia since 2002.

The results look quite different when considering the annual gains of increasing globalisation in relation to the initial level of GDP per capita in 1990. Working with the cumulative GDP gains between 1990 and 2014, Romania achieves a per capita GDP increase of € 4,500. This accounts for 230 percent of its GDP per capita in 1990. In Bulgaria and Estonia, cumulative GDP gains amount to 220 and 210 percent of the initial GDP level respectively. This is a much higher value compared

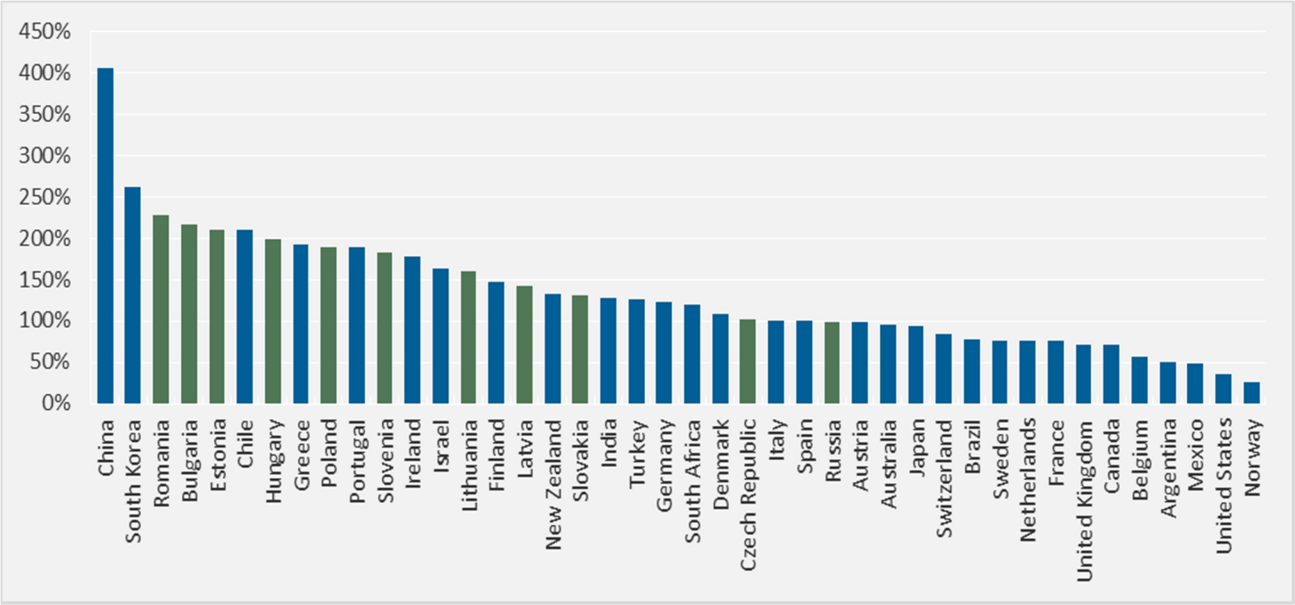
to industrialized countries such as Germany (about 120 percent), the United Kingdom (about 70 percent) and the US (37 percent, see Figure 4).

Figure 3. Average gains in real GDP per capita due to increasing globalization during the period 1990 to 2014 in selected countries, in euros (real=Y2000 prices)



Source: Bertelsmann Stiftung 2016a.

Figure 4. Globalization-induced per capita income gains 1190-2014 compared to per capita GDP in 1990



Source: Bertelsmann Stiftung 2016a.

4. Main impact of economic globalisation on emerging and developing countries

All the countries involved in globalisation – including both emerging and developing countries – are subject to the underlying, growth-generating effects of increasing globalisation. High economic growth is particularly essential for the latter, since such growth contributes to lifting their populations out of poverty. However, economic development in the least developed economies - the African economies in particular - is problematic.

4.1 Globalisation and growth in emerging and developing countries

Participating in the **international division of labour** enables emerging and developing countries – as well as advanced economies – to specialize in manufacturing products for which each country has a cost advantage and to achieve the growth effects described in Section 2.

Furthermore, connections with the global economy provide emerging and developing countries with access to the credits and modern technologies they so urgently need. As a rule, **foreign loans** are necessary because where economic output and the material standard of living are low, domestic savings are usually too low to finance the construction of production facilities and infrastructure. **Direct investment** from advanced economies plays a special role, because alongside financing, it also facilitates access to technologies. This results in positive economic effects for emerging and developing countries (see Petersen 2014 for more information):

- Through foreign direct investment, emerging and developing countries become more **integrated in the global economy**; this means that as a rule, inflows of foreign direct investment are accompanied by an increase in exports from and imports to the country receiving that investment.
- **Overall productivity** and **national income** increase in emerging and developing countries due to the higher capital stock and the technology transfer associated with it. The increase in national income is reflected in the higher GDP per capita.
- In the normal course of events, **competition** in emerging and developing countries will increase, because new providers arrive on the market. This leads to cost pressure, which is reflected in **falling prices** and allows consumer purchasing power in the destination country to increase. However, there are cases in which the entry of multi-national companies onto the market increases the market concentration in the target country. The associated reduction in competition is detrimental to consumers.

Overall, advancing globalisation therefore leads to an increase in growth and employment in emerging and developing countries, as well as in developed ones. This is demonstrated in the case of the emerging economies in the Bertelsmann Stiftung Globalisation Report mentioned above. At the same time, however, it is clear that **globalisation-induced GDP growth as measured in absolute terms** is **considerably greater for industrialized countries** than for emerging

countries, at least when looking at development in the period under exam. This means that between 1990 and 2014, the absolute differences in real GDP per capita have grown, e.g. between Germany and China (see Table 2).[6]

Although growth rates of real GDP were much larger in China than in Germany (with regard to both overall GDP and GDP per capita), due to the low initial level of GDP per capita mentioned in section 3.1, China was not able to reduce the gap in real GDP per capita compared to Germany. It is not clear whether Chinese GDP per capita might catch up with German GDP per capita in the long run due to larger growth rates. I have serious doubts that this might happen within the next decades because GDP growth rate for China as well as for India are expected to decline in the long run (see for example PwC 2017: 28).

Nevertheless, globalisation should still be regarded as a positive development from the point of view of emerging and developing countries, since GDP growth generated by globalisation has an important role to play in the fight against poverty for those countries that are on the poverty threshold.

Table 2. Development of real GDP per capita in Germany and China with and without increasing globalization

	Germany	China	Difference in real GDP per capita between Germany and China
Real GDP per capita in 1990	21,940 €	428 €	21,512 €
Real GDP per capita in 2014 without increasing globalization	29,237 €	3,372 €	25,866 €
Real GDP per capita in 2014 with increasing globalization	30,399 €	3,554 €	26,845 €

Source: Berterlsmann Stiftung 2016a.

4.2 The fight against poverty

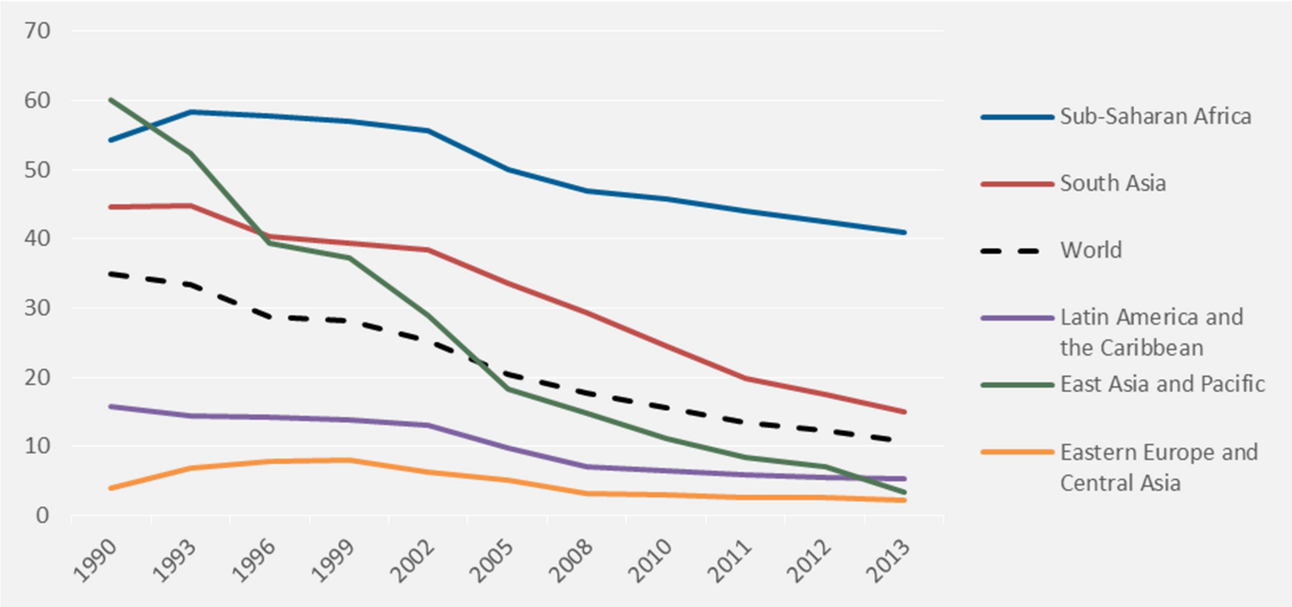
Especially for the less developed countries, the reduction of **poverty** – or, more specifically, the reduction of **absolute poverty** – plays a much more important role than in advanced economies. According to a broadly accepted international definition, a person is poor if he or she has less than USD 1.90 purchasing power parity per day. In 1990, the number of people living in absolute poverty worldwide numbered around 1.85 billion (35 percent of the global population). In 2013, despite a larger population, only just under 767 million people were poor. This is 10.7 percent of the global population.

[6] As mentioned before, the Globalisation Report focused on the indicator “GDP per capita” instead of absolute or relative GDP values.

Additionally, absolute poverty **varies significantly** from **region to region**. In developed industrialized countries there is practically no poverty in absolute terms. Economic growth in South East Asian economies, Eastern Europe and Latin America has led to a situation whereby no more than five percent of the population is considered poor. In Sub-Saharan Africa, however, the picture is quite different (See Fig. 5).

The economic **rise of East Asia**, which is also attributable to greater integration in the global economy, is demonstrated impressively by the vast decrease in the share of people living in poverty in this region. While this share in 1990 was still 60.2 percent, by 2013 it had decreased to only 3.5 percent. In Sub-Saharan Africa, the share decreased only from 54.3 percent to 41 percent during the same period (see Fig. 5). The relatively low reduction in poverty in African economies demonstrates that the least developed economies only benefit from globalisation to a limited extent.

Figure 5. Share of the population living in absolute poverty in selected global regions in the years 1990, 1993, 1996, 1999, 2002, 2005, 2008, 2010 to 2013. Levels for the year 1999 for South East Asia: author's own extrapolation



Source: World Bank Group 2016: 46.

4.3 Problems facing the least developed economies

While emerging economies benefit from economic globalisation – at least at the macro-economic level – there is no guarantee that this will be the case for the least developed countries. For such countries, globalisation can also lead to **negative growth effects**:

- The intensification of international trade leads to a situation whereby there is an increase in the quantity of goods and services that are produced and available to consumers in the countries involved. However, it is also possible that the **increase** in a country's **exports** may lead to a

drop in prosperity. If, while international trade grows, a country increases its exports, this raises the supply of goods on the world market. All things being equal, a greater supply of goods leads to a **reduction** in the **global market price** for the goods in question. If the drop in price is steep enough, it may lead to a reduction in export earnings despite the greater quantities being exported. This reduces the earnings available to the exporting country and thus lowers the standard of living in that country. This phenomenon, called immiserizing growth, is a risk for less developed economies in particular because they are more likely to export almost exclusively raw materials rather than any further processed goods (see Bhagwati 1958). As a matter of fact, this phenomenon only occurs if the additional amount of goods provided on the global market is relatively large. Due to growing international markets, this effect seems rather unlikely. Empirical data show that immiserizing growth is a relatively rare phenomenon (see Pyror 2007).

- Where a developing country exporting raw materials suffers falling export revenue, this usually goes hand-in-hand with a **current account deficit**. At present, this phenomenon is affecting countries in Sub-Saharan Africa in particular. The International Monetary Fund (IMF) has reported on the current accounts of 45 countries in this region. In 2015, 42 of those had a current account **deficit**, the highest of which were 30 percent of GDP or more. At the same time, it is associated with foreign debt. If the current account deficit persists for several years, the developing country's **foreign debt** continues to **rise**. Should international creditors lose confidence at some point and no longer grant additional loans to these countries, it may lead to an economic crisis.
- Opening up borders for products from industrialized countries can lead to industries in the developing countries, which are not yet competitive, being crowded out. This prevents an effective **industrial structure** from being developed in those countries. It is particularly problematic if agriculture in developing countries is confronted by competition from subsidized agricultural enterprises in industrialized countries. These **subsidies** distort competition in favour of the industrialized countries and can lead to a situation whereby farmers in developing countries are no longer competitive even in their own countries (see Giesbert, Pfeiffer und Schotte 2016: 8–9). As a result, this can lead the consumers in developing countries to rely on products supplied by the industrialized countries, i.e. imports. For the developing countries affected, this means a **decline** in domestic **production** and **employment**, as well as the aforementioned current account deficit, together with external debt. In short, paying subsidies to farmers in advanced economies **harms** the **world's poorest**.
- The reduction of import tariffs in the course of advancing globalisation is problematic for developing countries, inasmuch as **import tariffs** are an **important source of revenues** for the government in developing countries which do not yet have a functioning tax system. For example, in Sub-Saharan countries, import tariffs make up between 10 and 30 percent of public revenues (see Giesbert, Pfeiffer and Schotte 2016:9). By way of comparison, tariffs currently amount to less than one percent of public revenues in Germany (see German Federal Ministry of Finance 2016).

4.4 Summary

The **positive growth effects** of advancing globalisation are evident in emerging countries as well as industrialized countries. In particular, these effects are reflected in the steep **reduction** in **absolute poverty** in Asia, South America and Eastern Europe. By contrast, for the least developed economies in **Africa**, the results are **less positive** when the pros and cons of globalisation are weighed up. In these countries, the share of the overall population living in poverty decreased from 54 percent to only 41 percent between 1990 and 2013. Furthermore, African economies are reporting high current account deficits, which indicates low international competitiveness. In this sense, African countries appear to have been left behind by globalisation.

This development is also reflected in the fact that GDP per capita is growing more slowly in this region than anywhere else in the world. This means that the **gap** in **per capita income** between **Africa** and the **rest of the world** has been **consistently growing** since 1980 – both in absolute and relative terms (see Tab. 3).

Table 3. GDP per capita in USD purchasing power parity, ranked by percentage change.

Country Group Name	1980	1990	2000	2010	2015	Change (in percent)
Middle East, North Africa, Afghanistan, and Pakistan	4,575	5,602	7,747	11,533	13,291	+ 191 %
Sub-Saharan Africa	1,173	1,694	1,923	3,220	3,836	+ 227 %
Latin America and the Caribbean	4,583	6,379	8,994	13,463	15,510	+ 238 %
Advanced economies	**10,158**	**19,751**	**29,413**	**40,245**	**46,241**	**+ 355 %**
Emerging and developing Europe	4,433	7,357	10,068	17,527	23,149	+ 411 %
Emerging and developing Asia	560	1,339	2,785	6,914	10,004	+ 1,685 %

Source: IMF, World Economic Outlook Database April 2017. Downloaded on 25.7.2017.

5. Employment and income effects in advanced economies

5.1 Labour market effects from migration and foreign trade

The point of departure for the following analysis is the observation that the factor endowments of countries differ.[7] Factor endowment differences between countries are measured by the capital-to-labour ratio:

- If a country has a large stock of physical capital and only a small number of workers, the capital-to-labour ratio is high. Such a country is rich in capital or **capital-abundant** and **poor in labour**. **Advanced economies** such as Germany are characterized by this kind of endowment of factors of production.
- If the economy has a large number of workers but only a small stock of physical capital, the country is **labour-abundant** and capital-poor. Developing and **emerging countries**, such as China, are examples for labour-abundant economies.

To the extent that the price for the production factor labour is market-based, these scarcity conditions have an impact on market wages. In a country such as Germany, the relatively high scarcity of the factor of labour, in combination with a high standard of living, leads to relatively high wages. In an emerging country such as India, the relative abundance of labour and the low standard of living result in relatively low wages.

To the extent that the international interdependence of countries allows the **migration** of labour at relatively **low costs of transaction** (either due to low legal barriers for immigrants or to low individual costs in terms of removal expenses, costs of finding a job and so on), this **wage disparity** provides an incentive for Chinese workers to move to Germany. On the German labour market, immigration increases the supply of labour. By contrast, in China this kind of labour movement results in a reduction of the supply of labour. These changes to the labour supply change wage levels in both countries. According to economic theory the following labour market reactions are expected:

- In **Germany**, the increase in the supply of labour should cause **wages to fall**, especially for low-skilled workers.
- In China, by contrast, the reduction of labour supply is supposed to cause wages to rise (at least in case of a substantial loss of workers). According to economic textbooks, migration would continue until wages in both countries were the same.

In the face of these wage trends, advanced economies often make efforts to close their borders to foreign workers. However, even if there is no migration between countries at all, the **international division of labour** may lead to wages moving towards identical levels in both countries. Such

[7] The statements in Section 5.1 were taken from Petersen 2016a.

movement would take place as individual economies specialize in particular products and these products are subsequently traded between countries:

- Due to its abundance of labour and low wages, **China** has an international **competitive advantage** in manufacturing **labour-intensive** goods. This causes the demand for workers to rise. The higher demand for workers in China causes wages to rise.
- **Germany** has a competitive advantage in manufacturing capital and technology-intensive goods. By contrast, Germany reduces its production of **labour-intensive** products. This leads to the fall of the demand for labour in Germany. The lower demand for workers causes wages to fall. If wages cannot fall below a certain threshold due to social standards, employment also falls.

For developed economies, the international division of labour and foreign trade associated with it prompt **a drop in employment and wages**. This phenomenon has been fairly extensively researched and documented:[8]

- Autor, Dorn and Hanson showed that **Chinese imports** in the **USA** have caused unemployment to increase and wages to fall in local labour markets with high Chinese import pressure. The period under review covered 1990 to 2007 (see Autor, Dorn and Hanson 2013).
- A Bertelsmann Stiftung study examined the impact of imports from China, Eastern Europe and Latin America on wages and employment in **Germany** between 1995 and 2007. Here too, it was confirmed that imports from countries with large workforces and low wages created downward pressure on wages and employment (see Bertelsmann Stiftung 2016b: 12). Current calculations by Südekum, Dauth and Findeisen confirmed these results (see Südekum, Dauth and Findeisen 2017).

The above-mentioned studies have shown that import competition from low-wage countries have a negative impact on wages and employment in **local labour** markets **in advanced** economies with high imports from these countries. Obviously, the **overall labour markets effects** of increasing globalisation can still be positive for advanced economies. Even if advanced economies are specialized in the production of capital-intensive products, the production of export goods needs labour. Hence exports have a positive impact on wages and employment. In general, labour market effects of globalisation are **positive** for an advanced economy if the country has an **export surplus**.

In addition to this general impact of foreign trade on wages and the level of employment in developed industrialized countries, there is another effect which is relevant to the labour market: the international division of labour reinforces **wage disparity** between **highly qualified** and **low qualified workers** in advanced economies.

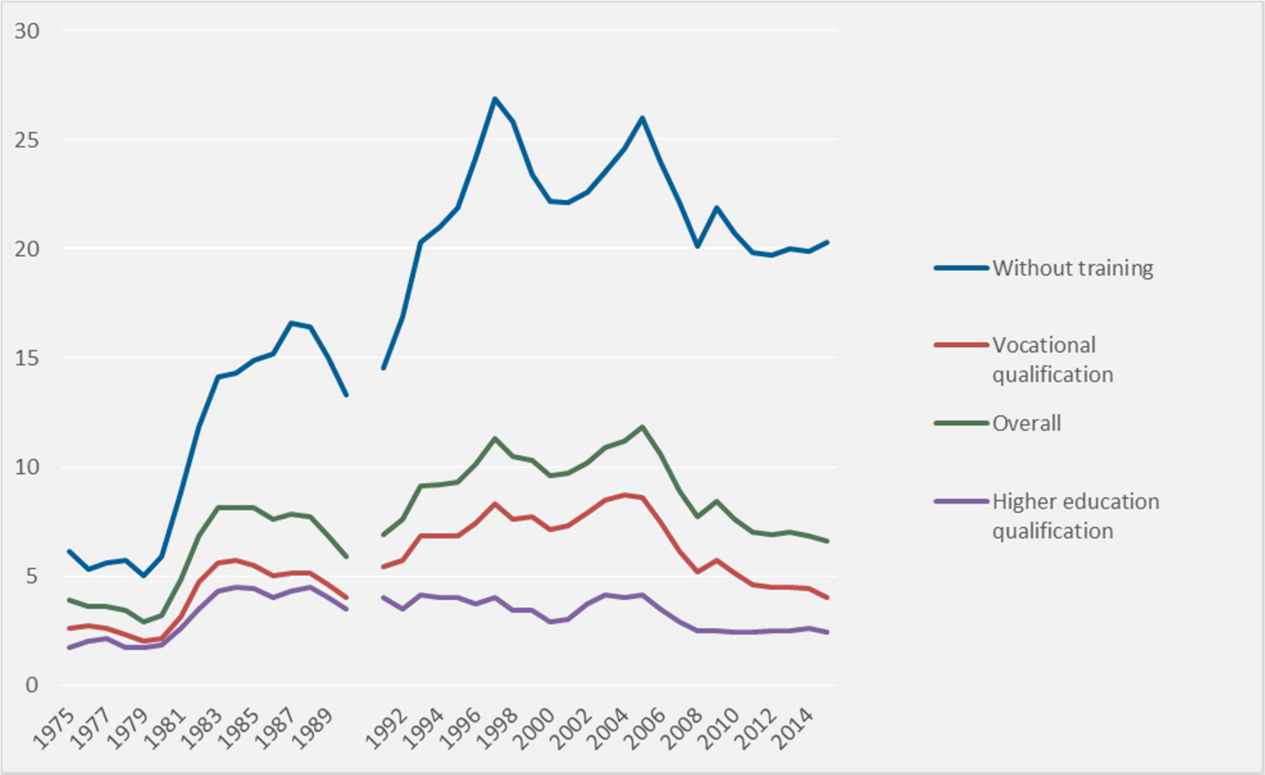
[8] According to my knowledge, there is no empirical evidence for a negative impact of immigration from China or other low-wage countries on wages and employment in advanced economies. Most likely, this is due to the fact that the number of Chinese immigrants in advanced countries is too low to have any significant labour market effect.

- Advanced economies such as Germany focus upon those production processes which particularly require capital, technology and highly qualified workers. The resulting stronger demand for these three production factors leads to an increase in the price for these factors, i.e. including an **increase** in **wages** for **highly qualified** workers.
- Emerging and developing economies, on the contrary, focus on production processes which require a large human workforce, particularly low-qualified workers. In advanced economies, this results in a drop in demand for workers of this kind.

Therefore, there is a **reduction** in both **employment opportunities** and **wages** for **low-qualified** workers in advanced economies. The poor labour market opportunities for low-qualified workers in developed industrialized countries are reflected in an exemplary manner in the trends for **qualification-specific unemployment rates** in Germany (see Fig. 6).

For the **emerging economies**, globalisation has in principle **reverse** income and employment **effects**: the abundant factor (labour) profits from a higher demand (both in terms of higher employment and higher wages) whereas the relative scarce factor (capital) suffers from a lower demand. Especially the higher demand for labour is essential for reducing poverty in these countries.

Figure 6. Qualification-specific unemployment rates in Germany (up until 1990 for West Germany including Berlin, from 1991 for Germany), figures as percentages.



Source: IAB 2016: 2–3.

5.2 Interaction between globalisation and technological advances

The main economic disadvantages of globalisation for advanced economies therefore affect the working population and low-qualified workers in particular. However, the negative income and employment effects for these groups are **by no means solely** the result of increasing **globalisation**. **Technological advances** arising from the pressure to reduce costs in a competitive economy are at least equally significant.

- In a **competitive** market economy, companies are continually being forced to **reduce their production costs** in order to keep up with their competitors and avoid being crowded out of the market.
- **Deploying modern technology** is one effective **instrument** for reducing costs. These technologies increase overall productivity, thus decreasing production costs.
- In highly developed economies such as Germany, it is typical for such technological progress to **replace** the production factor **labour** with the production factor **capital**.
- This **generates a fall in employment**, a tendency of **downward pressure on market wages** and therefore an increase in revenue for the production factor of capital.

These market mechanisms would operate even if an economy were completely isolated from the rest of the world. Nonetheless, globalisation does increase the pressure to cut costs, because it brings with it a considerably higher number of potential competitors. **Economic isolation** would therefore only lower the pressure to reduce costs: it would not prevent it completely. Competition-induced technological advances, which have a tendency to replace the human workforce with machines and digital technologies, **cannot be stopped over the long term** by isolationist economic measures.

5.3 Summary

To summarize, the **international division of labour** and the cross-border trade associated with the international division of labour result in an **increase in GDP** in all the economies involved. At the same time, however, as the economy is globalising in this way, there will be **winners** and **those who lose out** in every country. In advanced economies, it is workers who lose out, in particular the **low-qualified** and those **employed** in industries which are **competing** particularly intensely with **emerging countries** (especially China and Eastern European economies). In **emerging economies**, the relatively scarce factor (capital) suffers from a lower demand. In all countries, consumers benefit from lower prices and a larger variety of consumer goods.

6. The role of politics and institutions

Many of the previous remarks refer to the **pure market processes** of economic globalisation. As a matter of fact, economic processes do not operate in a political or institutional vacuum. Reducing or eliminating barriers to trade in goods, services, labour and capital are **political decisions**. Moreover, differences in **institutions** are main determinants for the economic development of different economies (see Acemoglu and Robinson 2008, Acemoglu and Robinson 2012). Following Douglass North (economist and Nobel Prize winner), institutions are "the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction" (North 1990: 3).

Concerning the topic of this paper, political decisions and institutional arrangements are essential for the **extent of globalisation** and for the way society is **dealing with** the **market outcomes** of economic globalisation.

The extent of globalisation is shaped by political decisions which promote or impede economic cross-border interconnections. A few examples of the role of political decisions and related institutions are the following:

- The decision of a country to **reduce import tariffs** and non-tariff trade barriers is essential for the size and structure of international trade in goods and services. Lower barriers in trade increase the incentive to trade with other countries. Such decisions are in the hands of national governments and parliaments (in the case of the European Union, these national competences are transferred to the EU). An important global institution which helps to lower trade barriers through negotiations is the World Trade Organization (WTO). Additional trade policy instruments are bilateral or regional free trade agreements which are used in order to reduce or even eliminate tariff and non-tariff barriers to trade. As a matter of fact, the trade policy of many countries goes in the opposite direction. For example: According to the "Global Trade Alert Report" by the Centre for Economic Policy Research (CEPR), **G20 members** implemented about **6,600 protectionist measures** between November 2008 and June 2017 (see CEPR 2017: 31).
- The same applies to the decision to **reduce capital controls** which are used by national governments in order to regulate the inflow and outflow of capital. Closely linked to capital controls are **foreign exchange controls** and the design of foreign exchange markets.
- Finally, **immigration regulations** of individual countries are an important limitation on international migrations flows. The removal of these restrictions, as is the case with the fundamental freedoms of the European internal market, is supposed to increase cross-border migration between EU-countries.

In addition to the shaping of globalisation, political decisions and institutional arrangements are decisive factors for the way a society deals with the results of globalisation, especially how a society wants to **correct** the **market results** produced by globalisation. The described outcomes of

globalisation – especially the negative effects for certain groups of persons such as low-skilled workers in advanced economies – can be softened through **public intervention**. For example, if a society does not feel comfortable with the distribution of market income due to globalisation, **taxation** and **transfer payments** can be used to achieve a socially desirable distribution of net income. Other institutions and policy tools that contribute to adjusting market outcomes according to the preferences of society are the education system, labour market policy tools, all areas of the social security system etc.

Therefore, political decisions and institutions determine whether the persons who are negatively impacted by the market processes in a globalised world are eventually to be the losers of globalisation or not. In case of a **strong welfare state** (extensive redistribution policy, high level of protection against dismissal and more), economic and social policies can compensate the income losses of those persons who lose their job due to international competition. In that case, looking at **disposable income** (= market income – taxes – social security contribution + social transfers), these persons might **not be classified** as 'losers of globalisation' **anymore**.

However, it must be pointed out that due to increasing globalisation, national capacities to manage the consequences of a globalised world are limited. An impressive example of this limitation is **Dani Rodrik's trilemma** of the World Economy. He states that the mobility of capital, products and labour cannot be combined with democratic systems and nation states: the disruptive effects (on income and employment) of globalisation require – as I have shown in the preceding sections – government intervention to stabilize this process and make it fair for everyone. In Rodrik's words, national governments need to complement markets. But more and more free trade agreements come at the expenses of national sovereignty and systems as we know them. A truly global economy would require a truly global governance and global decision-making structures, where all countries obey to the same rules – something that is currently not the case and that would probably be opposed by most people (see Rodrik 2011).

7. Reasons for criticism of globalisation in advanced economies

7.1 Key considerations

There are many reasons for the critical view of globalisation held by citizens in advanced economies: declining minimum social standards, increasing social inequality, rising environmental pollution due to more long-distance trade and related energy consumption, the loss of national sovereignty and more are – justifiably or not – frequently being attributed to globalisation.

In my opinion, growing criticism of globalisation is in essence due to the **issue of global distribution** of **income** and wealth. If we open borders for international exchange of goods, services, labour, capital and technologies, we **change** the level of **scarcity** of these resources in all participating countries. And once we change levels of scarcity, we also **change prices**. In a perfect theoretical world with one global market for a certain homogenous product, we are supposed to have one identical price for this product. This principle of **economic convergence** also applies to the prices for production factors, i.e. for wages and interest as the price of the production factor of capital (see Petersen 2016b for more information). Working with the simplifying assumption that labour is a homogenous factor of production, wages in advanced economies (= relatively poor in labour) are supposed to decline.[9] In general, from the point of view of citizens in advanced economies, the trend of economic convergence means that the difference in income compared to less developed economies is becoming smaller.

Advanced economies are still benefiting more from advancing globalisation if GDP per capita is taken as the indicator of the extent to which a country benefits. As shown by Figure 3 in Section 3.2, globalisation-induced growth in **GDP per capita** expressed **in absolute terms** is higher in advanced economies than in emerging countries. One of the reasons for this is that industrialized countries currently have **restrictions in place to stop** the emerging and developing countries from catching up with them:

- There are restrictions in place limiting the **migration** of labour from less developed countries.
- The same is true of competition from **agricultural products** from developing and emerging countries, since as a rule, such agricultural products are burdened with considerably higher import tariffs than industrial products and advanced economies enjoy a far greater competitive advantage for industrial products than for agricultural products (see Table 4).

If economic globalisation were to intensify, this would mean a removal of these restrictions. This would lead to a growing risk of a decline in the income and the material prosperity of citizens in

[9] Reasoning is more complicated in case of heterogeneous labor. In that case, wages for high-skilled labor and specialists in advanced economies could rise due to international trade. At the same time, wages for highly qualified specialists in developing countries would decline. However, these changes in wages for high-skilled labor are an incentive for migration: Highly qualified specialists from developing countries would have an incentive to move to advanced economies. If their number is large enough, this increase in labor supply causes a decline of wages for high-skilled labor and specialists in advanced economies.

developed economies. This would actually lead to a **new distribution** of **global prosperity** in favour of the emerging and developing countries.

Table 4. Tariffs on imports for different product groups in selected industrialized countries, simple average

Country	All products	Agricultural products	Non-agricultural products
Switzerland	6.7 %	36.1 %	1.8 %
Canada	4.2 %	16.7 %	2.2 %
Japan	4.0 %	12.9 %	2.5 %
European Union	5.1 %	10.7 %	4.2 %
USA	3.5 %	5.2 %	3.2 %

Source: WTO 2016: 8–24.

7.2 Why is criticism of globalisation boiling over now?

The considerations presented above about different levels of scarcity of labour and capital in advanced economies and developing countries are nothing new. Nevertheless, the strong increase in criticism of globalisation is indeed relatively new. In my view, there are **three** main **reasons** for the fast-growing criticism of globalisation that we are currently observing in advanced economies:

7.2.1 Integration of Eastern Europe and China in the global economy

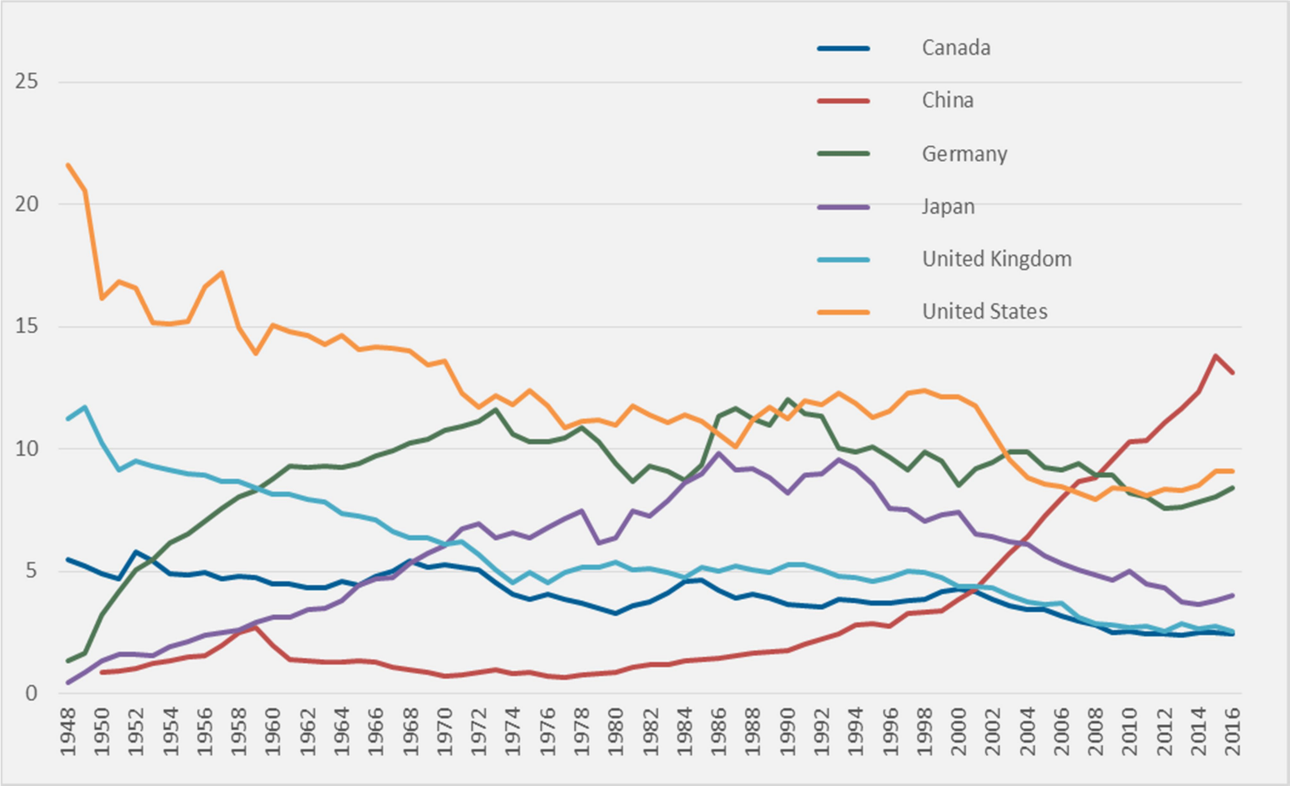
The distribution effects of advancing globalisation in industrialized countries, as described in Section 5.1, are developments which have, in principle, been observed for decades. However, the full impact of the international division of labour has only made itself felt since the 1990s. Up until the 1990s, advanced economies were still the world's most important exporting countries (see Fig. 7). Trade between industrialized countries brought relatively little pressure on wages and employment, because wages in advanced economies are on a roughly similar level.[10] Since the integration of Eastern Europe (fall of the Iron Curtain) and China (accession to WTO in 2001) into the global division of labour and world trade, the import competition from these countries in the USA and Western Europe has led to a decline in employment and wages in the West. At the same time, social security system payments in many countries have been reduced, meaning that the wage and employment effects of import competition have influenced the standard of living of those affected.

The described impact on wages and employment in the industrialized countries, which arises from competition with emerging countries, is demonstrated in particular by import pressure from **China**. This has increased considerably since the latter's accession to the WTO in 2001. **Since 2009,** Chi-

[10] See previous footnote: In this simple form, the argument applies to homogenous labor. Nevertheless, due to the sheer size of labor force in countries such as China and India – both skilled and unskilled – competition with these countries puts pressure on wages and employment in advanced economies.

na has been the **largest export economy in the world.** In 2015, Chinese exports represented almost 14 percent of all exports worldwide. This means that the negative labour market effects of this kind of globalisation are increasing in industrialized countries.

Figure 7. Share in global goods exports for selected countries between 1948 and 2016



Source: UNCTADstat, data downloaded on 26/07/2017.

7.2.2 The Lehman bankruptcy

Another main trigger for growing criticism of globalisation is the **outbreak of the economic and financial crisis** following the Lehman bankruptcy in the autumn of 2008. While the previous considerations refer to the **real economy** (markets for goods and factors of production, international trade in goods and services), the financial crisis relates to the financial sector. One aspect of globalisation is the high degree of international financial integration. In combination with ineffective regulation of the global **financial markets** (unregulated derivatives markets, shadow banking, information problems for rating agencies etc.) and the **expansive monetary policy** of many advanced economies during the period 2001 to 2005, financial globalisation facilitates large capital inflows, excessive credit booms and asset price bubbles. The meltdown of housing prices in the United States, Spain, Ireland, Iceland and the United Kingdom triggered a global financial crisis (for details see Stijn et al 2014: XV–XX). Due to the fact that there are many **transmission channels** between the financial and the real sectors of an economy (see BIS 2011), the financial markets

crisis caused a recession in many countries – especially in advanced economies. Three aspects of this financial crisis are significant for the growing criticism of globalisation:

1. Helplessness in the face of **anonymous, globalised market forces**, which caused the ripples from a local event to very quickly escalate into a shockwave across the globe that national governments were unable to act upon – except with economic and bank rescue packages which cost billions and were financed through loans.

2. In the 1980s, many governments of advanced economies abandoned the former demand side policy (Keynesian economic policy) and switched to a **supply side policy** (see for example "Reaganomics" and "Thatcherism") for which globalisation often served as a pretext, for example by politicians arguing that the country has to become more competitive on the world markets. For the next 30 years, supply side policy was the ruling economic policy paradigm in many advanced economies (see Adam 2014: 106). One element of this policy consists in tax reductions, which translates into lower social transfers. The fact that after years of cuts in public spending and social benefits due to supply side policy, **billions** in cash were **suddenly** available to save the very banking and financial system that was predominantly responsible for the onset of the Lehman bankruptcy, gave rise to criticism of government policies and globalisation.

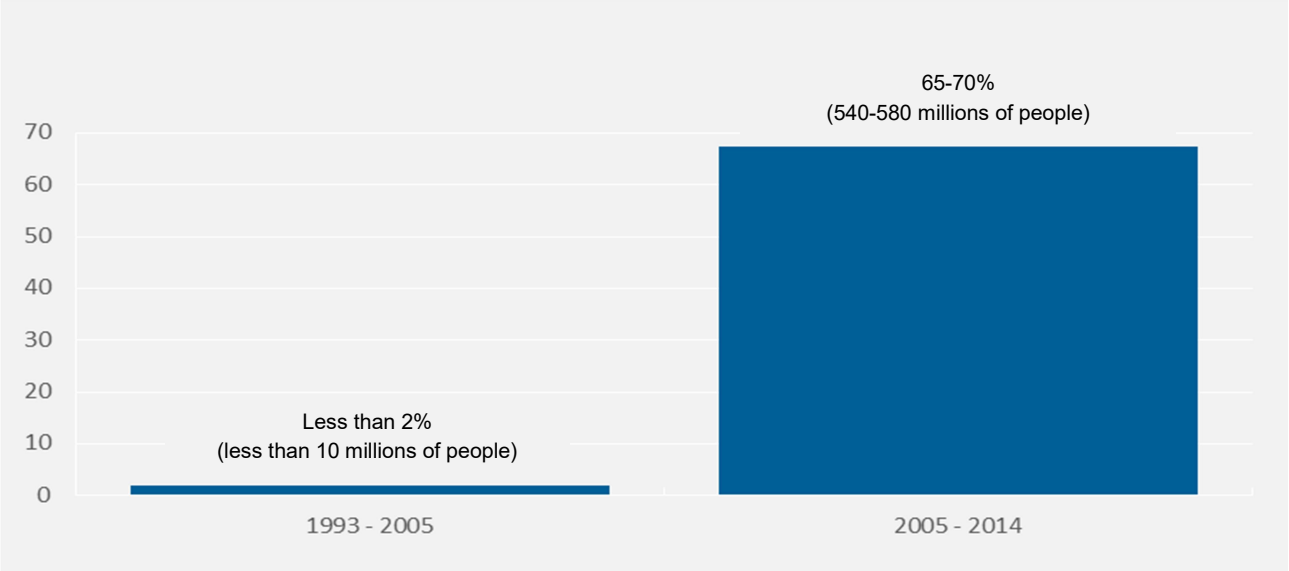
3 The economic slump led to an increase in **unemployment** worldwide, leading to cuts in income among the unemployed and, additionally, **downward pressure on wages** arising from the reduced demand for labour.

Increasing **competition** with suppliers from **low-wage countries** (in particular from Asia and Eastern Europe), increasing **unemployment** following the **Lehman bankruptcy** and **pressure on wages** associated with these events are the main reasons for the fact that the market income of private households in many developed economies was lower in 2014 than it had been in 2005. The McKinsey Global Institute published a study in July 2016 that focused on changes in market incomes in 25 industrialized countries (for more information on the following see McKinsey Global Institute 2016: 1–3):

- Comparing the **market incomes** of households in 25 industrialized countries in 2005 with the market incomes for the year 1993, less than **two percent** of all people had a market income in **2005** which was **lower** or equal to what it was in 1993. In absolute terms, this affected less than ten million people.

- we compare the figures between **2014** and **2005**, however, some **65 to 70 percent of all people** had a market income in 2014 which was lower than or equal to what it was in 2005. This means that some 540 to 580 million people were affected (see Fig. 8).

Figure 8. Percentage of households with flat or failing market income in the past decade



Note: Population-weighted average of 25 advanced economies(Australia, Austria, Belgium, Canada, Czech-Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, The Netherland, New Zealand, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland, the United Kingdom, and the United States).

Source: McKinsey Global Institute 2016:3.

7.2.3 Migration of refugees into Europe

In my opinion, the final trigger for growing anti-globalisation is the large number of **refugees** migrating into Europe. This has confronted us with the fact that opening up borders – whether it be for people or trade – changes the levels of scarcity in all the countries involved, thus automatically creating winners and losers in the process. It also shows that a more even distribution of a given global GDP means a **reduction of GDP per capita** for citizens in industrialized countries.

7.3 Criticism of globalisation and voter behaviour

Voting behaviour depends on **many determinants** (values, historical experiences, social environment, educational and cultural background etc.). The (current) economic situation of a person is one of these determinants. Consequently, the negative employment and income effects in industrialized countries resulting from increasing globalisation have an impact on the citizens' voting behaviour. There is growing empirical evidence for this relationship. Two reports will be discussed briefly below.

7.3.1.Germany: Globalisation strengthens right-wing political parties

A study by Christian Dippel, Robert Gold and Stephan Heblich (see Dippel, Gold and Heblich 2016a for more information on the following) shows that globalisation has a statistically significant influence on voter behaviour in **Germany**. The authors used **German foreign trade** with **China**

and **Eastern European countries** as an indicator for globalisation. They studied the influence of this trade on the vote share of the entire political spectrum in Germany. The study covered the period from 1987 to 2009. Analysing the voting behaviour in elections to the German Bundestag at county level ("Landkreise"), the only part of the political spectrum with a significant response to imports from low-wage economies consists of parties of the extreme right. The extreme right-wing parties in Germany during this period included NPD (Nationaldemokratische Partei Deutschlands), *Die Republikaner* and the DVU (Deutsche Volksunion) (see Dippel, Gold and Heblich 2016b: 10). When 408 German counties were analysed, the following correlations could be observed:

- Those **regions** which were **particularly seriously** affected by **import competition** with China and/or Eastern Europe showed a **significantly higher** share of the vote for **right-wing** parties in the German Bundestag elections.
- To the extent that export opportunities improved in a region, the share of the vote for these parties declined.
- A glance at the **individual data** leads to the conclusion that it is low-qualified workers from manufacturing industries that are particularly affected by competition with Chinese and Eastern European competitors who are especially likely to support right-wing parties.

7.3.2 United Kingdom: Globalisation strengthens Brexit supporters

Italo Colatone and Piero Stanig from Bocconi University have analysed the influence of various factors on the **Brexit Referendum** in the United Kingdom (UK) (see Colantone and Stanig 2016 for more information on the following). Among other things, the analysis included trends for **Chinese imports** to the UK. More specifically, import trends in 167 regions between 1990 and 2007 were studied. Econometric calculations were used to examine whether increasing imports from China had a statistically significant impact on voter decisions. The most important results of those calculations can be summarized as follows:

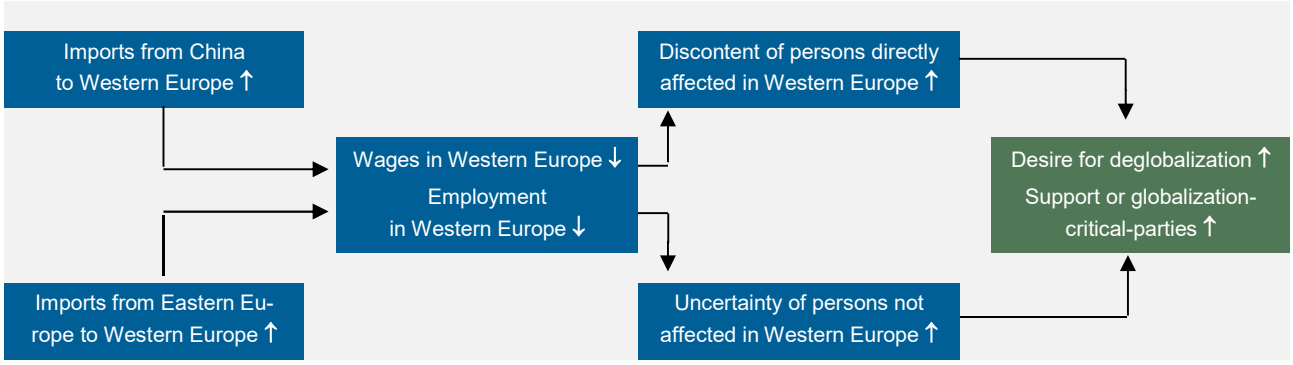
- Those **regions** which were affected to a particularly **great extent** by **Chinese imports systematically** had a **higher share** of **Brexit voters**. Specifically, this was the case for regions which had once had a high proportion of manufacturing companies in the past. A region's **share** of **immigrants** had **no** statistically significant **influence** on the voters' decision of whether to vote for Brexit.
- Calculations based on **individual data** confirmed these results. There was a higher proportion of Brexit voters in regions which were in particularly intense competition with Chinese imports and this was actually independent of the personal employment situation in which those voters found themselves. Even those employed in the **services sector** in regions with high levels of Chinese imports were more likely to be in favour of Brexit, despite the fact that they were not directly affected by goods imports from China. At the end of the day, the proportion of Brexit voters did not depend on whether the voters were unemployed or low-qualified. Therefore, the deciding factor for whether there tends to be greater support for Brexit depends not on the situation of the individual or their household, but rather on the **economic situation of the region**

in which they live. Even if people are not actually personally affected by the negative effects of greater competition from Chinese imports, they are more likely to be anti-globalisation and in favour of Brexit, because they are aware of the negative economic impact on their region.

Therefore, Colatone and Stanig state in summary: "Hence, we can claim that globalisation of trade, as captured by our import shock measure, is causally driving support for Brexit. In addition, voters seem to react sociotropically to the globalisation-induced shock" (Colantone und Stanig 2016: 37).

As a result, in my opinion, the interrelationship between globalisation and voter behaviour can be **summarized** as follows: **I believe** that the deciding factor for whether or not citizens in advanced economies are against globalisation is the level of **competition** with **emerging countries** such as China and Eastern European countries. Such countries have a cost advantage in terms of industrially manufactured goods, due to low wage costs. That means that in manufacturing industries in industrialized countries, there has been downward pressure on wages and a decline in employment. This has led to **dissatisfaction** among those affected. At the same time, even among those persons who are not yet affected by import-driven labour market effects, there is increasing **uncertainty** regarding their own economic situation in the future. The wish to tackle the **cause of this dissatisfaction and uncertainty** subsequently leads dissatisfied and uncertain voters to turn towards anti-globalisation parties (see Fig. 9).

Figure 9. Diagram of the relationship between foreign trade with developing countries and voting behaviour in Western European countries



Source: author's own diagram.

An additional reason for growing criticism of globalisation which goes beyond the trade effects is the **loss** of (political) **control**. Due to growing complexities and interdependencies, single local events can have global consequences. Ian Goldin and Mike Mariathasan use the term "**butterfly defect**" to describe growing systematic risks and growing "vulnerability arising from increased connectivity and complexity" (Goldin and Mariathasan 2014: 4). They also observe that we still lack the capacity to manage these complexities and interdependencies (see Goldin and Mariathasan 2014: 3). The loss of control increases individual risks (income, employment and more). Since this loss is due to increasing globalisation, people might wish to reduce the level of globalisation achieved.

7.4 Which counter-measures are needed?

Describing a package of measures intended to stem the criticism of economic globalisation and thus combat criticism would exceed the scope of this paper. However, one fundamental point for such a package is clear: the deciding factor will be the distribution of globalisation's dividends in **Europe** in such a way that those who have lost out under globalisation will also have the opportunity to benefit from gains in income. This requires policies that further **reduce income inequality** and **strengthen social security systems**, in order to mitigate the citizens' fear of change. In addition to compensating for lost income, it is also necessary to advance a more equal distribution of opportunities and capabilities, for example, by providing **further training programs** for the unemployed so as to facilitate their transition to industries which are benefiting from globalisation. Moreover, governments could use special funds in order to support companies or regions to adjust to the structural changes caused by globalisation. Examples for such funds are the U.S. "**Trade Adjustment Assistance** (TAA)" which was first authorized in 1962 (see Hornbeck 2013: 1) and the "**European Globalisation Adjustment Fund** (EGF)" established in 2006 by the European Commission (see Cernat and Mustilli 2017: 2). In turn, this requires a **government** with **sufficient tax revenues** at its disposal.

A cross-society consensus has to be struck on how exactly these policy instruments should be designed. This consensus must take into account unintended effects. However, first it will be crucial to come up with a **fundamental, cross-society commitment** to ensure a more just distribution of the dividends of globalisation and to focus policy more on **those who have lost out under it**. When looking at advanced economies such as Germany, the most important winners and losers of globalisation can be identified in Table 5 below. Since the main negative impacts resulting from globalisation affect **income distribution**, potential winners and losers consist of the **providers** of **factors of production**. The macrosocial gains from globalisation need to be redistributed between these groups. If these persons are not adequately compensated, serious social and political tensions arise which will threaten prosperity across the entire economy (see Heilmann 2017:12).

Table 5. Potential winners and losers of increasing globalization in advanced economies

	Potential winners	Potential losers
Factors of production	Capital, technology and skilled labor	Labor, especially unskilled labor
Products	Capital and technology intensively produced goods and services as well as local services	Labor intensively produced goods
Foreign trade relations	Exports to developed industrialized countries	Intense competition with suppliers from emerging economies (especially Asia and eastern Europe)

Source: author's own diagram.

When considering the **global level**, it is also necessary to take into account the **redistribution** of the gains from globalisation between countries. If resistance to economic globalisation becomes stronger in those regions which have been left behind by the globalisation process (see Section 5), then there is a risk that protectionist measures will lead to a global trade war. The developed industrialized countries would suffer under such a trade war as well. For this reason, it is in the long-term self-interest of the industrialized countries for emerging countries and developing countries in particular to become **better integrated** in the global economy.

This will require that the asymmetrical restrictions on global economic interdependence which currently persist (high capital mobility versus limited migration, high import tariffs on agricultural products versus low import tariffs on industrial goods, see Section 7.1) be **dismantled**. However, in this respect, two stubborn **dilemmas** present themselves:

- If these restrictions are removed, then the income gap between industrialized countries and emerging/developing countries in absolute terms will be reduced. However, this will mean a **decline** in **real GDP per capita** in **industrialized countries**, since it will not be possible to close this gap solely through the growth of per capita income in emerging and developing countries. Such a development could lead anti-globalisation in the USA and Europe to continue increasing.
- If the restrictions referred to are only partially dismantled or left in place entirely, the income gap between industrialized countries and the rest of the world will increase in absolute terms. Globally, this will lead to **growing pressure for redistribution** which may lead to large **migrant flows**. This would likewise further motivate anti-globalisation voices in the USA and Europe.

8. Synthesis and discussion

8.1 Potential future globalisation developments

Three aspects are of central importance for the future development of economic interdependence between all countries: **demographic trends** in the different countries (in particular population growth and size as well as age structure), **technological advances** (in particular information and communication technologies) and **policy decisions**, which create the framework for globalisation:

- **Demographic trends** and **technological advances** are the deciding factors for the **international division of labour** and for the way in which the **international trade** associated with that division is organized. Additionally, both of these influencing factors have an impact on the options for relocating production sites abroad and on levels of **foreign direct investment**. Finally, demographic trends and technological advances have a substantial influence on the material prosperity of societies and are therefore important factors for **migration flows**.
- At the end of the day, whether economically motivated cross-border activity does actually take place or not depends on the **policy framework** in place (see section 6). It is this framework – mainly consisting of **institutions** - which determines whether cross-border activities are facilitated, made more difficult or even completely prohibited.

It is not possible to give a clear-cut answer to the question of how the drivers mentioned here will influence trends in economic globalisation over the coming years:

- **Worldwide demographic trends** show that the global population of around 7.4 billion (as of mid-2016) could grow to over 8.5 billion by 2030 and almost 9.9 billion by 2050. However, this population increase will take place almost exclusively in emerging and developing countries (see Population Reference Bureau 2016: 10). It can therefore be assumed that the demographically-driven **international division of labour** between industrialized countries and the rest of the world will **increase**.
- What is going to make the situation more difficult from the point of view of the developed industrialized countries is the fact that the population in many such countries will age in the coming years. The **aging of the economically active population** is expected to have a negative impact on productivity and economic growth (see Bertelsmann Stiftung 2010). In and of itself, this will have a **negative effect** on the **international competitiveness** of those societies which are aging, in contrast with the young, growing populations of emerging countries.
- Furthermore, **worldwide demographic trends** are influencing **global migration flows**. I believe that the absolute difference in GDP per capita between highly developed industrialized countries and the least developed economies (particular African economies) will continue to widen over the coming decades. In combination with **climate change**, the negative impact of which will be most acute and evident first in Africa, this will mean that developed industrialized countries will have to prepare themselves for **high migration flows** on an ongoing basis.

- At the same time, however, it should be taken into account that the economic upturn in **emerging countries** will cause **wages** to rise in those countries. China is an excellent case in point. In China, the **average wage** in urban areas increased almost **tenfold** between 1995 and 2013 (see Petersen 2016c). This reduces the incentive to relocate the manufacture of goods to China. This development suggests there will tend to be a **drop off** in the **international division of labour**.
- The impact of **technological advances** on economic globalisation is **ambivalent**. On the one hand, further decreases in the costs for communications and transport are to be expected, which will lead to an **increase** in the **international division of labour**. On the other hand, the trend toward greater deployment of capital and technologies will reduce the international division of labour: if it is typical for production processes around the globe to rely less on human workers, then relocation of production processes to emerging and developing countries with large labour forces will no longer make economic sense. Instead, a global **insourcing** trend can be expected. Then it may also be expected that **global trade volumes will decline**, in particular with respect to trade in goods.
- In my opinion, at the end of the day, the **deciding factor** for the future development of economic globalisation will be the **policy frameworks**. If the increase in protectionist measures which has become evident over the last two years continues, this will lead to a step backwards for economic globalisation. Whether this tendency will really persist in the future is **impossible to forecast**, since this is a question of political reactions to preferences expressed by society as a whole. Even if major protectionist measures in the form of import tariffs and non-tariff trade barriers were to be implemented, it would not signal the end of globalisation. If countries such as the USA were to isolate themselves by means of tariffs, there would be a greater incentive for companies from the rest of the world to set up production sites in the USA, so as to circumvent such import tariffs. Globalisation itself would change: less foreign trade, but greater foreign direct investment.

8.2 Open issues

Many challenges are arising from the interplay between globalisation, demographic change and technological advances towards a more capital- and technology-intensive production. The following issues and questions provide food for thought:

- **How should international trade be organized in the future?** Protectionist measures are the wrong approach. Economic isolation means losing out on the static and dynamic growth and productivity effects which have been described in this paper. For consumers, this will result in higher prices, lower purchasing power and a decline in material living standards. Despite this, since the onset of the Lehman bankruptcy, the number of protectionist measures implemented has risen. At the same time, concluding new free trade agreements such as the planned Transatlantic Trade and Investment Partnership (TTIP) is becoming increasingly difficult. Finally, the US protectionist course which the new US government has announced presents a major threat to world trade, because it could prove to be the opening shot in a global trade war. New

ways are needed to strengthen sputtering free trade. At the same time it is necessary to weigh the advantages of free trade against the disadvantages. The same holds true for the entire process of globalisation. As long as the advantages of an increase of free trade are larger than the negative effects, increasing free trade makes sense. If, however, the economic, social and ecological costs of more trade are larger than the benefits of increasing free trade, pushing trade forward would no longer make sense. The same holds true for the entire process of globalisation (see Petersen 2017).

- **What contribution could the welfare state make to help those in developed industrialized countries who have lost out under globalisation to share the dividends it brings?** The governments' conventional approach to redistribution has been the tax-transfer system. Additional options are trade adjustment funds and regional policy instruments. However, redistribution is associated with efficiency losses which have to be taken into consideration. Moreover, against the backdrop of greater capital mobility, the question arises of whether greater compensation can be arranged between globalisation's winners in advanced economies (this means not only highly qualified workers, but in particular those who draw upon capital income) and those who have lost out under globalisation. This presents a serious challenge for precisely those advanced economies that have an aging population: in such countries, the number of people of working age is shrinking, while the number of pensioners is growing. If the trend is for declining government revenues to run up against growing demands for social security payments, then the governments' capacity to redistribute wealth will be limited.
- **What role do technological progress and globalisation play in the distribution of opportunities for income and employment?** The fall in wages and employment opportunities in industrialized countries is not only the result of competition from suppliers in low-wage countries: it is also due to technological change towards more capital- and technology-intensive production processes. Although globalisation does increase the pressure to implement such processes, even in an isolated economy there would be competitive pressure which would lead to work-reducing technological advances.
- **Which additional aspects of globalisation need to be taken into account?** This paper focused on the pure economic effects of globalisation. Clearly, however, globalisation also has profound consequences on many other aspects that are vital for the well-being of individuals: quality of work, social security, environmental conditions, quality of social networks, quality of democracy and institutions and much more. It is far from certain that the impact of economic globalisation is positive on these aspects. In case of a negative impact of globalisation on these issues, society needs to think about how to deal with such trade-offs.
- **How will global financial markets be regulated?** The worldwide reduction of international capital movement restrictions has made a substantial contribution to the considerable increase in the scale of cross-border capital flows. At the same time, however, price volatility for shares, securities and foreign exchange has increased considerably, as has the risk that speculative

bubbles will form and burst. Perhaps the current level of financial openness – especially with regard to portfolio investment and speculative capital inflow – is already too high, because financial volatility might result in more economic damage than benefits (see Ostry, Loungani and Furceri 2016: 39). Furthermore, international capital flows are also being used to minimize tax payments on private persons and companies, through tax havens. This means that society loses out on funds which are urgently needed for public tasks (infrastructure, public education, social security etc.).

- **How it is possible to stem CO_2 emissions and the associated climate change arising from advancing globalisation?** The rise in the cross-border exchange of goods is linked to increasing energy consumption and CO_2 emissions. This in turn is intensifying global warming and climate change. It is necessary to internalize these negative external effects, e.g. by way of a carbon tax. However, the deployment of such an instrument has often failed because individual countries would suffer a competitive disadvantage if they were to levy such a tax.
- **What levels (local, regional, national, European or global) are most appropriate to take measures in order to shape globalisation?** In the previous section, in case of required public intervention, there was no differentiation regarding the proper government level. As mentioned above, national governments are overburdened with challenges such as climate change which is at least in part caused by globalisation-related resource consumption. If global solutions are not possible, regional integration – as is the case with the EU – could be an adequate response to the challenges of increasing globalisation.

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Acknowledgements

The author would like to thank for valuable suggestions and comments Katharina Bilaine (Bertelsmann Stiftung), Christopher Hartwell (Center for Social and Economic Research), Marco Lisi (Nova University of Lisbon), Alina Lyadova and her colleagues from the Global Economy and Finance Research Programme (Chatham House), Eric Thode (Bertelsmann Stiftung), Piero Tortola (EuVisions) and the participants of the NextEra Workshop organized by the Finnish Innovation Fund Sitra in Helsinki on 21 June 2017. Remaining errors are the responsibility of the author.

Supported in part by a grant from the Foundation Open Society Institute in cooperation with the OSIFE of the Open Society Foundations.

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