Policy Brief #2016/02

Globalization Report 2016: who benefits most from globalization?

In the Globalization Report 2014, we examined how far individual countries benefited from increasing globalization between 1990 and 2011. In the Globalization Report 2016, we extend the period under review to cover 1990 to 2014. As was the case in 2014, industrialized countries are the biggest winners from globalization.

The starting point of both globalization reports is based on the belief that increasing economic, political and social interconnection between countries can increase economic growth via a number of pathways: cross-border trade allows each country to concentrate on the production of goods and services for which it has the greatest productivity advantage. For the countries involved, this leads to an increase in gross domestic product (GDP). The international mobility of labor and capital means that these production factors can be deployed where they can make the biggest contribution to the overall economic value.

The intensification of trade between countries increases the pressure of competition and with that the need to reduce production costs through innovation and technical improvements in order to remain internationally competitive. When costs are reduced through technical improvements, productivity increases and so does GDP. Also, political agreement on a mutual recognition of product standards facilitates cross-border trade. This also boosts economic growth, while at the same time providing consumers with a greater choice of products.

BertelsmannStiftung

Measuring globalization

In order to answer the question of how far the progression of globalization increases economic growth, the first step was to draw up a globalization index, which measures how interconnected a country is with the rest of the world. This index is very closely based on the well-established “KOF Index of Globalization” produced by the Swiss Federal Institute of Technology (ETH) in Zurich (cf. Dreher 2006). In addition to indicators on economic interconnected-ness (e.g. data on cross-border trade in goods and services, trade barriers and capital controls), it also includes information on the social aspects of globalization (e.g. international tourism, the level of the dissemination of information and ideas, as well as the proportion of the population who were born abroad), and also how politically integrated a country is in the world (e.g. data on membership of international organizations, foreign embassies in the country in question and international treaties).

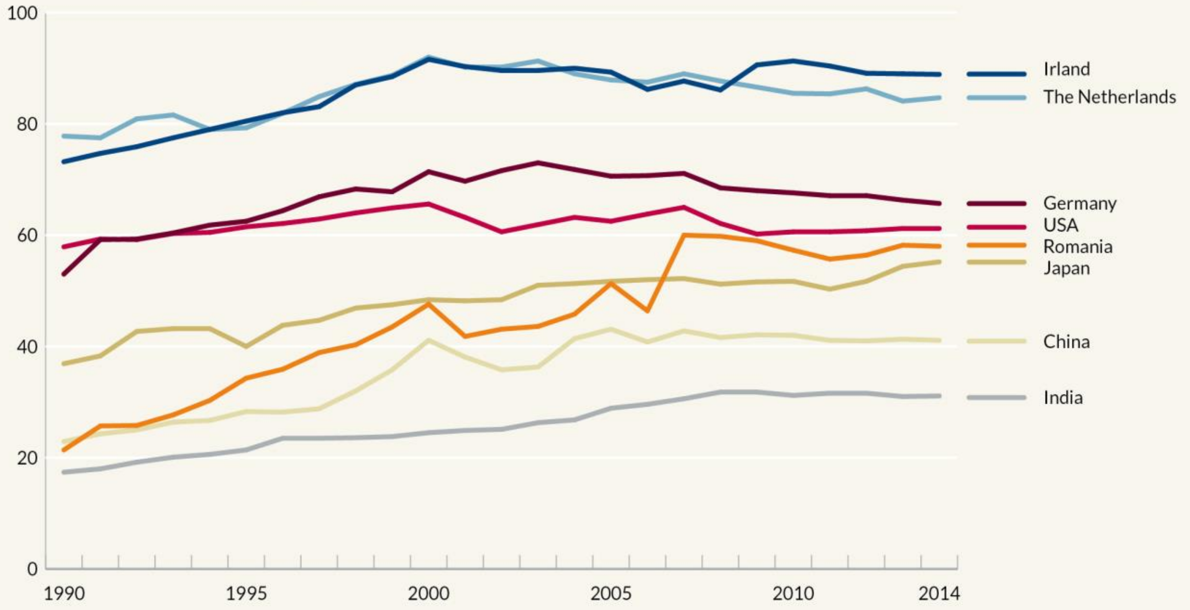
The period under review is from 1990 to 2014. The data enable a globalization index to be drawn up for every country and every year, with scores between 0 and 100. The higher the number of points on the index, the more interconnected that country is with others in the world.

Figure 1 shows the results of globalization measured in this way for selected countries. A number of underlying patterns can be seen:

- The global interconnectedness of small industrialized nations such as Belgium, Ireland, the Netherlands and Switzerland is particularly high. These countries only have access to small domestic markets and therefore are involved in more foreign trade than large countries. Large industrialized countries such as Germany, Japan, Italy and the USA only reach a mid-level on the globalization index, since they are not so interconnected globally and rely more heavily on their domestic markets.

- The up and coming emerging countries such as China and India have the lowest number of points on the index of all 42 countries. The reasons for this include the fact that restrictions such as capital controls and trade barriers are in place. Additionally, it should be borne in mind that in each case the economic values

FIGURE 1 **Characteristics of the globalization index for selected countries from 1990 to 2014**



Source: Prognos 2016

BertelsmannStiftung

are expressed in relation to GDP. As a consequence, for the indicator “goods exports in relation to GDP” China ranks only 35 among the group of 42 countries.

- The greatest increase in points on the globalization index were achieved by Eastern European countries. Between 1990 and 2014 Romania, Bulgaria, Hungary and Estonia each increased their score by 30 points or more. In the USA, the globalization index rose by only 3.3 points in the same period, in Belgium by four points and in Germany by just under 13.

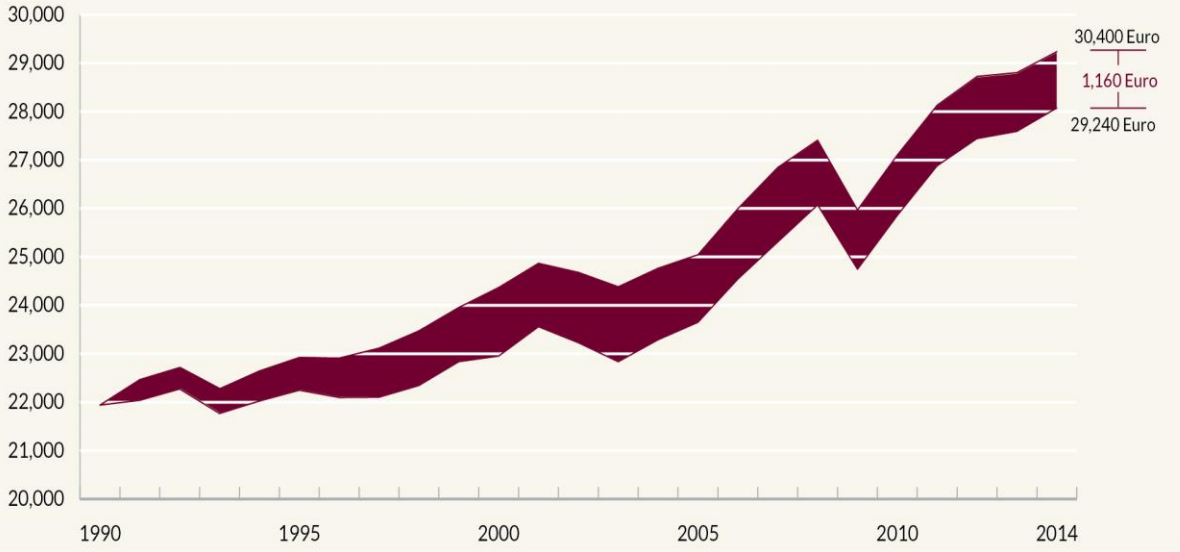
- Finally, it can also be seen that for many developed countries, their score on the globalization index has stagnated or even fallen since 2000/2001. Since 2007, following the Lehman collapse, the globalization index scores for some 35 countries have fallen. The financial and economic crisis thus caused a setback for globalization. The seven countries which have been able to reach a higher globalization index score since 2007 include Mexico and Japan.

Measuring the growth effects induced by globalization

The second step involved using regression analysis to calculate what impact an increase in globalization has had on the growth of real (i.e. inflation-adjusted) GDP per capita. We see this measure as being the key indicator, because from the point of view of individual citizens it is not the GDP, but GDP per capita which serves best as a rough guide to average living standards. In relation to the period from 1990 to 2014 and to the 42 economies studied, the calculations produced the following results: if the globalization index rises by one point, this leads to an increase in the growth rate of real GDP per capita of around 0.3 percentage points.

The final step was to compare the actual change in real GDP per capita between 1990 and 2014 in the 42 countries with a hypothetical growth path. For this growth path, it was assumed that between 1990 and 2014 there was no intensification in the international interconnectedness of all the countries studied. This means that the globalization-induced growth gains that resulted from the actual evolution of globalization can be eliminated. The results of this process

FIGURE 2 **The development in real GDP per capita in Germany between 1990 and 2014, with and without increasing globalization, in euros**



Source: Prognos 2016 | BertelsmannStiftung can be explained by taking Germany as an example (see Figure 2).

In Germany in 1990, real GDP per capita was around €22,000. By 2014, it had risen to €30,400 (an increase of €8,400). Without increasing globalization as defined by the globalization index used here, real GDP per capita would have only reached around €29,200. As a result of increasing globalization between 1991 and 2014, real GDP per capita in the year 2014 was therefore almost €1,200 more than it would have been without this advance in globalization. Over the whole period, GDP per capita growth totaled €27,000. Spread out across the 24 years, it means that increasing globalization had raised the average GDP per capita in Germany by around €1,130 per year. This calculation was carried out for all 42 countries; globalization-induced GDP growth was achieved in every country.

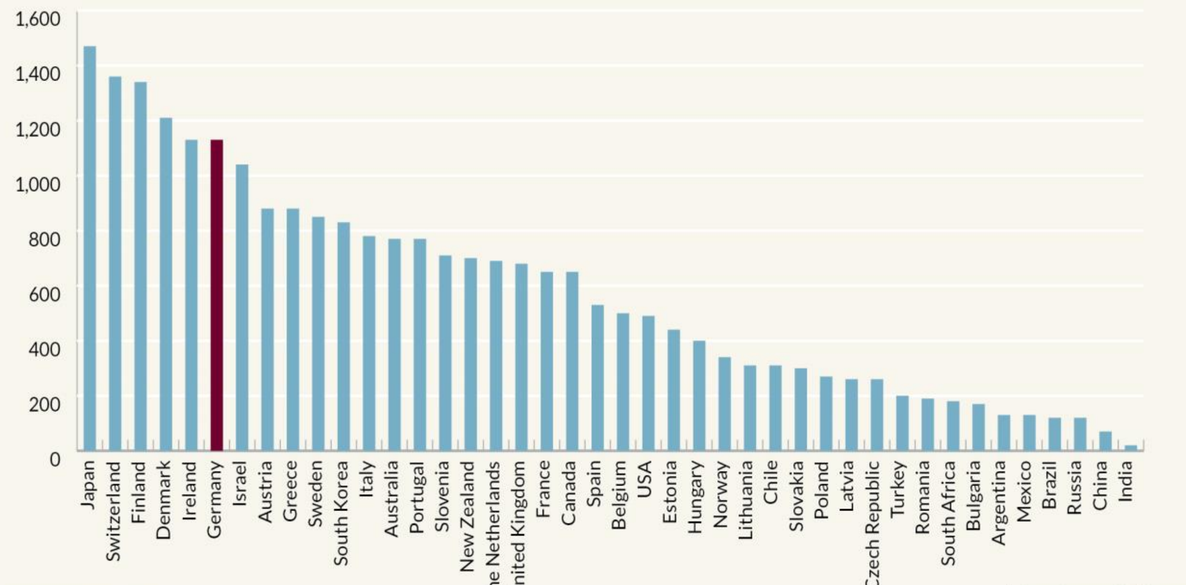
The figures for average annual gains in real GDP per capita – which can be attributed to globalization – vary a great deal (see Figure 3): the largest average increases in income were for Japan and Switzerland, with an average of €1,470 and €1,360 per capita per year respectively. Bringing up the rear when globalization gains are measured in this way were the large emerging countries, including the BRIC-countries (Brazil, Russia, India, China). So in China, the average globalization-induced GDP gains per capita and per year were only around €70 per year, while in India they were as little as €20.

Fundamentally, there are three reasons that the gains in income from increasing globalization vary so much:

- The absolute size of growth gains brought about as a result of globalization depends on how high GDP per capita was to begin with. If GDP started at a low level, e.g. €1,000, then a ten percent increase in income would lead to an increase of €100. Even when, with a GDP of €10,000, there is an increase of only two per cent, resulting in an increase of €200, this is a larger gain in absolute terms.

- A second important factor refers to changes in globalization during the period under review: the more steeply the globalization index increases over time, the larger are the growth gains brought about by globalization. Countries

FIGURE 3 **Average real per capita income gains due to increasing globalization, during the period 1990 to 2014, in euros (real = Y2000 prices)**



Source: Prognos 2016

BertelsmannStiftung

which already had a high score on the index, have only a little leeway for further globalization growth gains. This is why the Netherlands and Belgium are to be found in the mid-field of the ranking GDP gains brought about by globalization.

- Finally, the time at which the globalization index increases also plays an important role. If a country increases its score on the index only in the last year of the period under review, then that country can only achieve globalization-induced growth gains in that single year. By contrast, if the country increases its level of globalization in the first year of the period under review, then this places GDP per capita on a higher level, which can be maintained during all subsequent years, generating globalization-induced income gains every year.

Comparison with Globalization Report 2014

In comparison with Globalization Report 2014, taking three additional years into account has wrought some changes:

- Since the beginning of the financial and economic crisis in 2008/2009, globalization index scores have fallen for many countries, in particular for the developed, industrialized nations. Therefore, during the additional three years covered by Globalization Report 2016, there has been no additional GDP growth brought about by globalization in these countries. As a result, across the entire period from 1990 to 2014, the average annual per capita income gains are lower than in Globalization Report 2014, because the increase in the globalization index during the entire period is lower.

- Japan is one of the few countries which have been able to increase their global inter-connectedness in recent years and so has also been able to increase its globalization growth gains during these years. The reasons for this increase in globalization are in particular the clear increase in Japanese direct investment abroad and an increase in foreign trade in services (both for exports and imports). Combined with a higher start-ing level for GDP per capita and a headstart in globalization, this means that Japan is now the globalization world champion, out of the 42 countries studied. In 2014, Japan was already in third place.

- In Globalization Report 2014, an increase of one point on the globalization index led to an increase in the growth rate for real GDP per capita of 0.35 percentage points. Now the corresponding growth rate is 0.31 percentage points. A possible explanation for the lower growth effects of increasing globalization could be that as a result of the global financial and economic crisis, the volume of world trade fell temporarily, and has grown more slowly since then in comparison to before the crisis. Instead, domestic demand has become more important for economic development, meaning that globalization GDP growth is lower.

Further reason for differences in the level and ranking for GDP growth which can be attributed to globalization are data revisions and exchange rate fluctuations.

Implications for economic policy

In the view of the Bertelsmann Stiftung, the results of Globalization Report 2016 lead to two main conclusions for economic policy.

Firstly, developments over recent years show that slowing or even reversing global interconnectedness between countries have a negative impact on economic growth. Economic isolationist efforts, expressed for example by closing borders or protectionist measures, are made at the cost of citizens' economic well-being.

Secondly, it has been shown that it is the developed industrialized nations which continue to benefit most from globalization, because it is for them that increasing globalization generates the largest GDP per capita growth in absolute terms. After all, the industrialized countries started off with considerably higher GDP per capita The income gap in absolute terms between industrialized countries and emerging or developing countries has actually increased due to globalization. This growing income inequality poses a risk for the global economy, because it could lead to louder calls for protectionist measures in those emerging and developing countries which are negatively affected. This would have a negative impact on all countries, in particular on export countries such as Germany.

However, to turn our backs on globalization would take us down the wrong path – for both the developed and the emerging economies. On the contrary, especially those emerging and developing countries which have reached only below average levels on the globalization index thus far still have the biggest potential to globalize – and thus to generate high globalization-induced growth effects. This is why it is essential that emerging countries become better integrated in the global economy.

For this to happen it is important for one thing that emerging countries open up to a greater extent and reduce trade barriers and capital controls. For another thing, industrialized countries should open up their markets to products from less developed countries, without immediately demanding that these countries do the same: since less developed economies are often not yet competitive in these areas.

Additionally, industrialized countries should reduce or do away completely with their subsidies for agricultural products, in order to end the distortion of competition associated with these subsidies and their impact on emerging countries, which are often heavily dependent on agriculture.

Finally, industrialized countries should provide less developed economies with financing opportunities, so that these countries can finance the infrastructure, the education and training, and the production facilities they need, including the necessary technologies.

Literature

- Bertelsmann Stiftung (ed.). Globalization Report 2014. Gütersloh 2014.
- Bertelsmann Stiftung (ed.). Globalization Report 2016. Gütersloh 2016.
- Dreher, A. „Does Globalization Affect Growth? Empirical Evidence from a new Index". Applied Economics (38) 2006. 1091–1110.

Policy Brief 2015/07: Technological change and employment polarization in Germany

The generally positive employment development in the German labor market over the last two decades has been accompanied by a qualitative change in employment structures. While the middle of the job market has stagnated, employment has grown particularly within low-paid and less-skilled jobs, as well as within the high-wage sector. These tendencies toward polarization have been relatively weak; however, there is sign of an increasing labor market cleavage, particularly with regard to the expansion of atypical employment. These developments can be attributed to the substitution of routine tasks in the course of technological change and globalization, as well as to institutional changes in the German labor market since the early 2000s.

Policy Brief 2016/01: Fixed-term employment and European labor market mobility

Fixed-term contracts are regarded as an instrument for increasing labor market flexibility. However, European countries differ significantly in the prevalence of temporary jobs. A comparison shows that temporary employment promotes labor market mobility to only a limited extent. While it facilitates labor market access in part, it also leads to unstable employment relationships and segmented labor markets with few opportunities for advancement. To create sustainable employment and facilitate transitions into permanent jobs, EU states must combine reforms of employment protection with investment in education and training as well as in active labor market policies.

V.i.S.d.P

Bertelsmann Stiftung
Carl-Bertelsmann-Straße 256
D-33311 Gütersloh
www.bertelsmann-stiftung.de

Dr. Stefan Empter
Phone: +49 5241 81-81137
stefan.empter@bertelsmann-stiftung.de

Andreas Esche
Phone: +49 5241 81-81333
andreas.esche@bertelsmann-stiftung.de

Dr. Thieß Petersen
Phone: +49 5241 81-81218
thiess.petersen@bertelsmann-stiftung.de

Titel: My Life Graphic / Shutterstock Images

Authors | Contact

Dr. Thieß Petersen
Program Shaping Sustainable Economies
Bertelsmann Stiftung
Phone 05241 81-81218
thiess.petersen@bertelsmann-stiftung.de

Dr. Michael Böhmer
Prognos AG
Phone 089 954 1586-701
michael.boehmer@prognos.com

Johann Weiß
Prognos AG
Phone 089 954 1586-705
johann.weiss@prognos.com

ISSN-Nummer: 2191-2467