Future
Social Market Economy

BertelsmannStiftung

Policy Brief # 2014/02

20 years of the European single market: growth effects of EU integration

The ongoing European integration has increased the economic growth of participating national economies. Calculating the cumulative gains in the real gross domestic product per capita resulting from the integration of Europe between 1992 and 2012, every national economy under consideration realized income gains from the European integration. Denmark and Germany saw the greatest gains per resident. If the values from only 1992 and 2012 are compared, every country except for Greece has been able to achieve a higher per capita income due to the European integration.

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Focus

Comparison of gross domestic product per capita in 2012 with and without increased European integration

Rank	Country	Difference in %	Difference in euros
1.	Germany	2.3	680
2.	Denmark	2.0	720
3.	Belgium	1.6	470
4.	Austria	1.4	450
5.	Finland	1.2	360
6.	United Kingdom	1.0	310
7.	Ireland	0.9	330
8.	Italy	0.9	200
9.	France	0.8	230
10.	Spain	0.7	150
11.	Netherlands	0.6	190
12.	Portugal	0.4	60
13.	Sweden	0.4	140
14.	Greece	–1.3	–190

Source: Prognos AG. BertelsmannStiftung

The ongoing European integration between 1992 and 2012 led to the real gross domestic product (GDP) per capita in Germany in 2012 being around 2.3 percent higher than it would have been without this integration progress. With the exception of Greece, the other countries considered here also achieved integration-induced growth in their per capita gross domestic product.

The European single market officially exists since January 1, 1993. It was founded on four basic freedoms: free movement of goods, persons and services as well as capital and payment transactions. The establishment of a single market is a key building block for a Europe that is growing together. There are two underlying motives for strengthening European integration: maintaining and securing peace in Europe and increasing economic prosperity as well as employment. The following assessments examine the extent to which the European integration has increased economic prosperity in the European Union (EU).

1. Growth effects of a single market

The creation of a single market and the accompanying removal of tariffs and non-tariff barriers to trade with regard to the exchange of goods and services can boost economic growth through different channels. To begin with, the elimination of barriers to trade reduces the prices for imported products. Consumers benefit from this because it increases the purchasing power of their income. Price reductions on products traded between the members of a common market also fuel increasing trade activities between the member states. Companies that produce export goods benefit from this as well as the people employed by these companies because increased production generally means increased employment. In addition, the greater production volumes of the exporting companies result in greater demand for inputs. In turn, this boosts production and employment in supplier companies as well. These positive growth and employment effects apply to both domestic as well as foreign suppliers. For example, in 2012 approximately 3.5 million jobs in the EU depended on the German industry's demand for inputs (cf. Bavarian Industry Association (Vereinigung der Bayerischen Wirtschaft e.V.) 2014, pg. 1).

Furthermore, the creation of a European single market enables businesses to produce for a larger market. The associated exploitation of the advantages of mass production means lower unit costs and therefore lower prices, which further increases consumers' purchasing power. Moreover, the intensification of trade elevates competitive pressures between the countries. This forces businesses to reduce production costs through innovation and technological progress in order to remain competitive. Cost reduction through technological progress means that productivity rises. This implies that the volume of goods that can be produced with a given amount of production factors in-creases, which corresponds to a rise in economic output. Finally, the border-crossing mobility of labour and capital promotes a situation in which the available production factors are being used where they create the highest value, which also represents an impulse for economic growth.

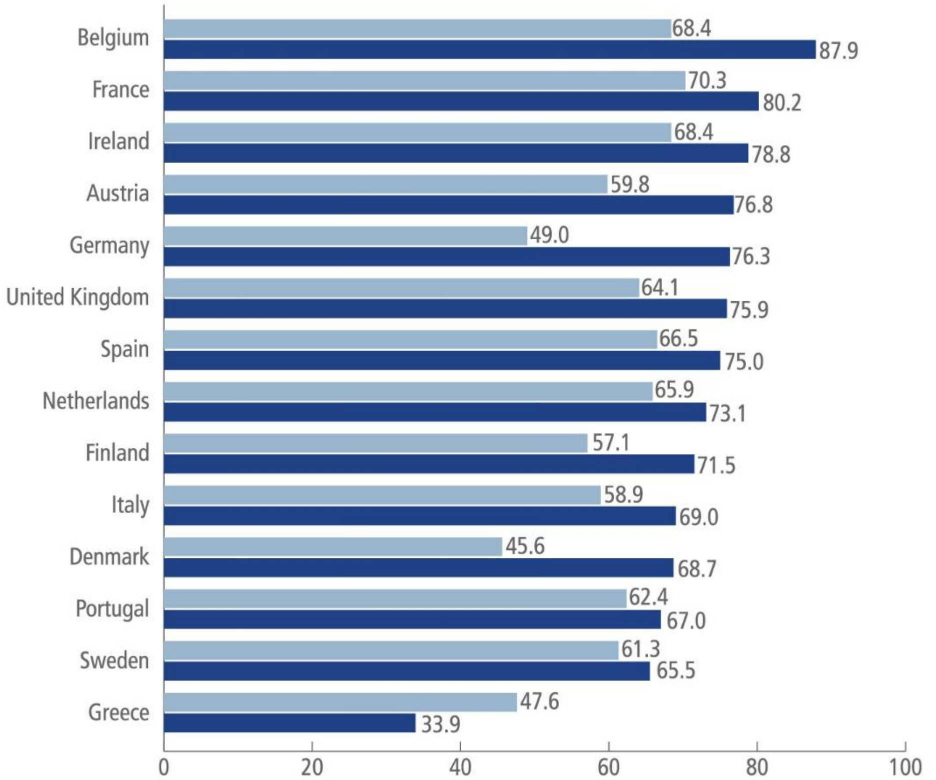
2. Measuring Europe's economic integration

In order to quantify the growth effects resulting from a more heavily integrated Europe, we first need to measure the level of integration. To do so, we develop our own index which relates to existing literature (cf. König and Ohr 2013) but has been adapted with respect to the evaluation period and the indicators used regarding the specific purpose of the study. In addition to indicators regarding the level of economic interconnectedness with respect to the exchange of goods, services, labor and capital, the index used here also includes aspects of economic homogeneity and the symmetry of short-term economic developments among the countries considered. Based on this data we constructed an index representing the level of the integration for 14 out of the EU-15 member states that spans the period between 1992 and 2012 and takes on values between 0 and 100. The index is constructed such that higher values indicate a higher degree of integration with the EU (cf. detailed report, Bertelsmann Stiftung 2014). Due to major data gaps and extreme values, Luxembourg was the only country for which the index could not be constructed.

At the beginning of the evaluation period, integration index ranges between 45.6 index points for Denmark and 70.3 for France. By 2012, with the exception of Greece, all countries were able to increase their level of integration with the EU. The strongest increase within these 20 years was achieved by Germany with 27.3 index points and Denmark with around 23 index points (see Figure 1).

Fig. 1: Level of the integration index in the 14 countries for the years 1992 and 2012.

Data given as index points



Source: Prognos AG.

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3. Indicator for economic advantages of the single market

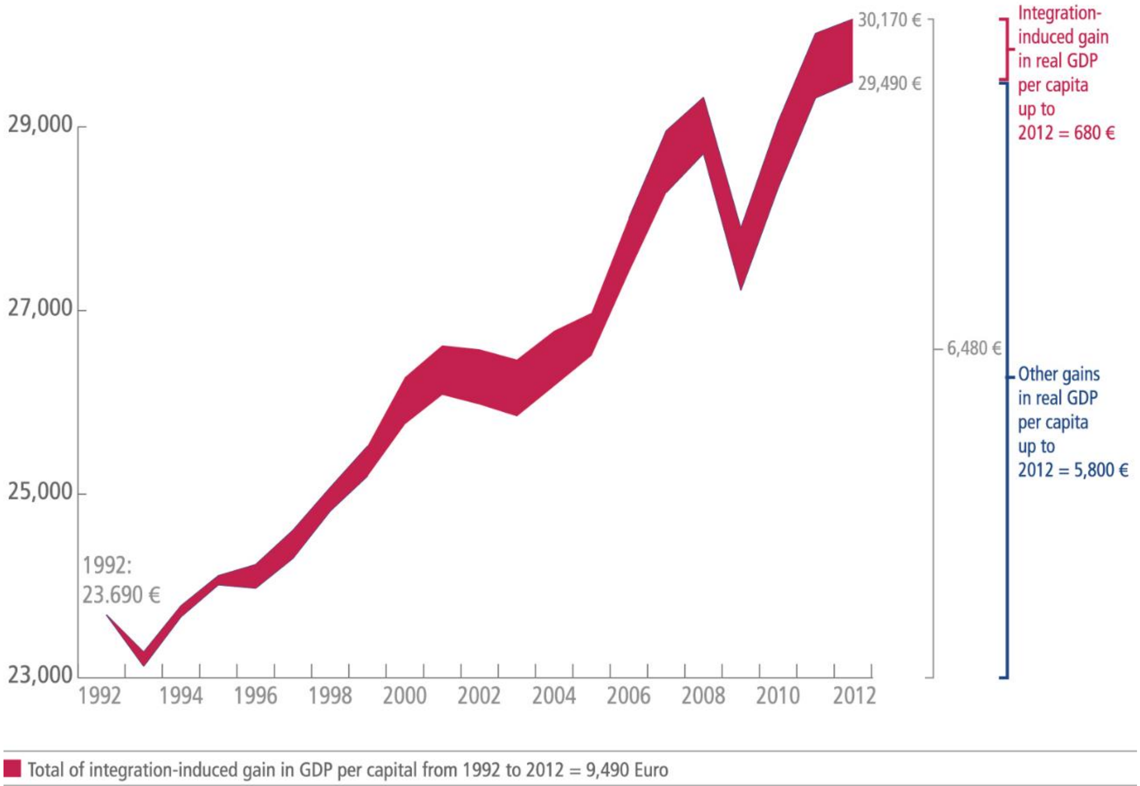
The economic advantages of an increasingly integrated Europe are measured here through the real gross domestic product per capita. Even if the gross domestic product (hereafter GDP) is not an ideal indicator for prosperity due to a series of shortcomings, it continues to be considered a key method for measuring prosperity (cf. one critique among many, Deutscher Bundestag 2013, pg. 233f.). One example are the so called W3 indicators of the German Bundestag's special enquete commission on "Growth, Prosperity, Quality of Life" which represent material wealth through three indicators, one of which is the GDP per capita (ibid, pg. 28). An increase in the GDP per capita is considered advantageous because a higher per capita income elevates people's material and non-material well-being and thus can lead to an improvement in living conditions. Negative accompanying effects such as a potential growth of inequality in the income and wealth distribution or a greater environmental burden are not specifically considered here but, of course, they should be kept in sight (cf. in greater detail, Petersen 2011).

4. Quantifying the growth effects

The calculation of the actual extent to which the real per capita income of European citizens has grown due to increasing European integration involves two steps. First, regression analyses are used to calculate the influence that an increase in Europe's integration has on the growth of the real GDP per capita. This method controls for the influence of additional explanatory variables on economic growth such as inflation, national debt and government expenditure. To ensure reliable estimates, the data from every country under consideration and the entire observation period is utilized for estimating the link between European integration and economic growth. Based on the time period from 1992 to 2012 and the 14 national economies, the regression results state that a one-point increase of the EU integration index is associated with a rise in the growth rate of the real GDP per capita of 0.08 percentage points. By assumption, this correlation applies to all national economies under consideration, that is, country-specific characteristics are not taken into account in these calculations.

In a second step, the actual development of the real GDP per capita in the EU-14 countries between 1992 and 2012 is compared with a hypothetical development in which the European integration of all these countries remains at the 1992 level. This means that the index for the European integration for each country takes on the value of the year 1992 for each year from 1992 to 2012. The annual differences of the real GDP per capita between the actual and hypothetical development are added up and then used as a measure for the gains from integration. Figure 2 exemplifies this approach using Germany as an example: Without the increase in the level of integration with the EU, the real GDP per capita in 2012 would have been approximately €680 lower. Over the entire evaluation period, the integration-induced income gains add up to about €9,500. Therefore, the income gain of a German resident during the 20 years under consideration figures approximately €450 per year.

Fig. 2: Growth of the real GDP per capita in Germany in euros from 1992 to 2012 with and without progressing EU integration, (real = in 2005 prices), rounded values

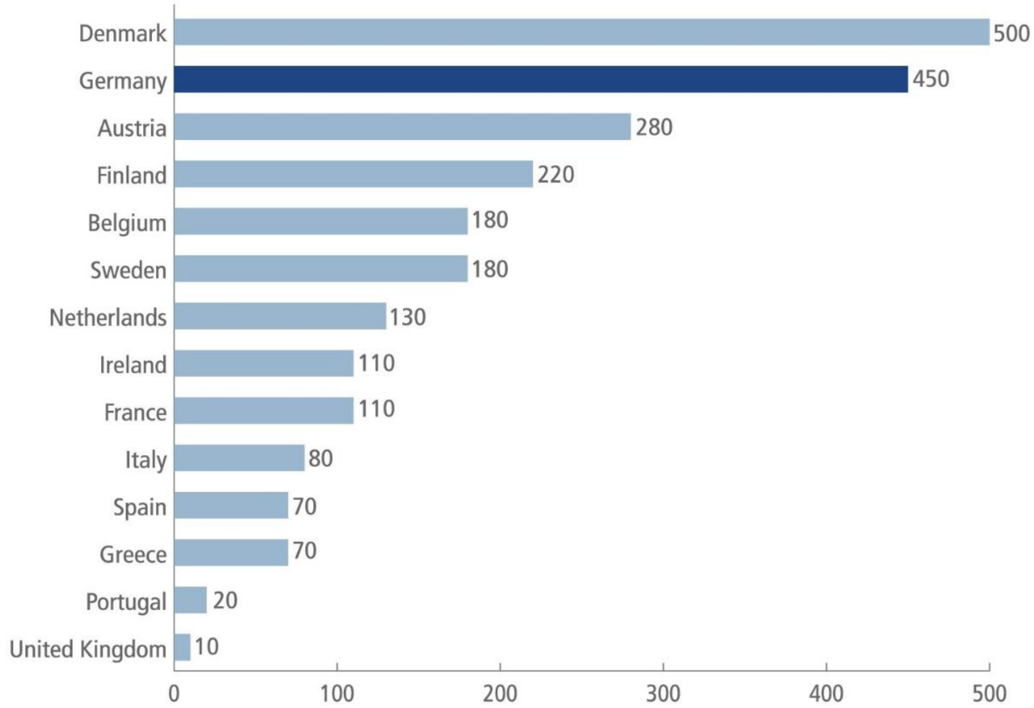


Source: Prognos AG. BertelsmannStiftung

With an average annual income gain of €450 resulting from greater European integration, Germany achieves the second-highest income gain, surpassed only by Denmark (annual income gain of €500 per year and inhabitant). The smallest advantages from the growing European integration accrue to Portugal and the United Kingdom with annually €20 and €10 per inhabitant, respectively (see Figure 3). The United Kingdom's position is partly due to the selection of the evaluation period which began with a major de-integration step when the United Kingdom quitted the European currency system.

According to this measure Greece also achieves an integration-induced income gain although it suffers a loss in income under the exclusive consideration of the two years 1992 and 2012 (cf. focus graphic). The average income gain for Greek citizens of around €70 per capita over the entire period of 20 years are due to the progress in the level of integration in the time up to 2009: Between 1992 and 2009, the value of the Greek integration index rose from 47.6 to 64.2. Afterward it declined to 33.9 index points at the end of the evaluation period (2012).

Fig. 3: Average annual gain in the real GDP per capita as a result of the growing EU integration in the period from 1992 to 2012 (in euros, rounded).



Source: Prognos AG.

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5. Economic policy implications

The European single market and the advancing European integration have had a positive impact on the economic growth of EU member states. But the realization of the European single market is far from being complete. National borders still play a major role, which is exemplified by the trade in services, lacking cross-border mobility of labour and public contracts (cf. Eich and Vetter 2013, pg. 13-15). A study from 2013 that examines the untapped potential of the European single market identifies six areas with particularly high potential, most of which belong to the services sector. These include logistics (land transport of freight), retail trade (trade in non-specialized stores), the hotel industry, construction of buildings, architectural and engineering activities and wholesale trade in construction materials (cf. London Economics and PwC 2013, pg. xvi). For the necessary completion of a common labour market improvements like a faster and simpler recognition of professional qualifications earned in other EU member states, a cross-border matching system for people who seek jobs and open positions, and cross-border transferability of social insurance seem to be in order (cf. European Commission 2012, pg. 11).

Literature

- Bertelsmann Stiftung (Publ.), 20 Jahre Binnenmarkt Wachstumseffekte der zunehmenden europäischen Integration, Gütersloh 2014.

- Deutscher Bundestag, final report of the special enquete commission on "Wachstum, Wohlstand, Lebensqualität – Wege zu nachhaltigem Wirtschaften und gesellschaftlichem Fortschritt in der Sozialen Marktwirtschaft" (Growth, Prosperity, Quality of Life – Paths to a Sustainable Economy and Social Progress in the Social Market Economy) Bundestagsdrucksache 17/13300, Berlin 2013.

- Eich, Theresa, and Stefan Vetter, Der EU-Binnenmarkt nach 20 Jahren – Erfolge, unerfüllte Erwartungen und weitere Potenziale, Frankfurt am Main 2013.

- European Commission, Single Market Act II – Together for New Growth, Brussels 2012.

- König, Jörg, and Renate Ohr, 2013, Different Efforts in European Economic Integration: Implications of the EU-Index, Journal of Common Market Studies, 51 (6), pp. 1074–1090.

- London Economics and PwC, Study on "The cost of non-Europe: the untapped potential of the European Single Market," London/Luxembourg 2013.

- Petersen, Thieß, Ökonomische Grenzen des Wachstums, in: Wirtschaftswissenschaftliches Studium, 40. Jg., 2011, pp. 250 - 253.

- Vereinigung der Bayerischen Wirtschaft e.V. (Bavarian Industry Association) (Publ.), Die Bedeutung der deutschen Industrie für Europa, Munich 2014.

Policy Brief 2013/06: Europe's Sustainability Strategy - A Casualty of the Euro Crisis or an Ambitious Restart?

Europe's economy should not just grow, it should also retain a social dimension and use resources sparingly. The goal of sustainability may be embedded in the Treaty on European Union and the EU's economic strategies, but emphasizing GDP growth and competitiveness in battling the crisis threatens to undermine efforts to establish a shared approach to achieving sustainable economic activity. This may be unavoidable during an acute crisis. But in the long term, the EU must show the way forward.

Policy Brief 2014/01: Who profits most from globalization?

Globalization, understood as the economic, political and social interconnection of countries, leads to increased economic growth. On average, the more a country proceeds its interconnection with the rest of the world, the greater its economic growth will be. If real per capita gross domestic product (GDP) is chosen as the reference index for the economic benefits of globalization, Finland can point to the largest gain from globalization from 1990 to 2011. Ranked according to this perspective, Germany holds fourth place out of a total of 42 economies evaluated.

V.i.S.d.P

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