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**Article**

## EU immigration has increased Germany's economic growth

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AT A GLANCE

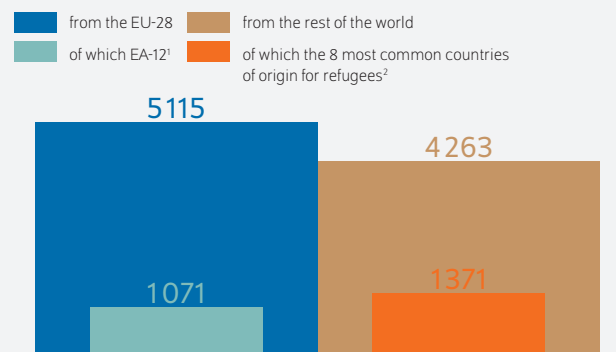
## EU immigration has increased Germany's economic growth

By Marius Clemens and Janine Hart

- Since 2011, around ten million immigrants have come to Germany, some five million from other EU countries
- According to model simulations, the situation on the German job market compared to the situation in other countries was a crucial reason behind this inner-EU migration
- Without migration from the EU, GDP growth would have been 0.2 percentage points lower on average per year between 2011 and 2016
- Policy measures should aim at improving migrants' access to the job market according to their qualifications

### The majority of immigrants who have come to Germany since 2011 were citizens from other EU countries; this immigration has boosted GDP growth in Germany

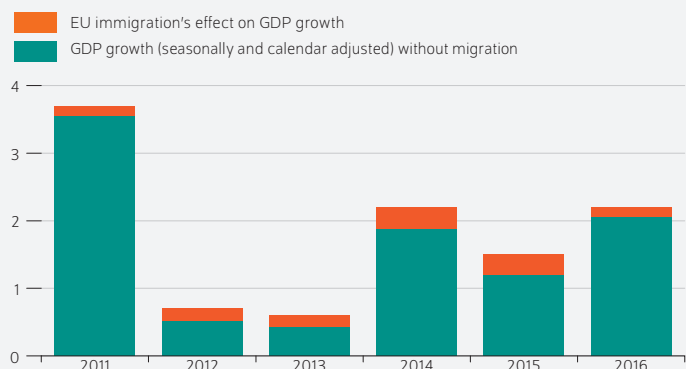
Gross immigration to Germany, 2011 to 2017  
In thousands



Source: German Federal Statistical Office, BAMF, OECD Economic Outlook, Central Register of Foreigners, authors' own calculations.

<sup>1</sup> Twelve countries which joined the European Monetary Union in 2001 at the latest.  
<sup>2</sup> Syria, Iraq, Nigeria, Afghanistan, Iran, Eritrea, Somalia, Pakistan.

Business cycle effect of EU immigration to Germany between 2011 and 2017  
2011 to 2017, in percentage points



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### FROM THE AUTHORS

*“The relationship between immigration from the EU and economic growth is twofold: people come to Germany because of the strong economy and labor market; they also lift economic growth by contributing to eliminate labor market bottlenecks.”*

— Marius Clemens, study author —

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# EU immigration has increased Germany's economic growth

By Marius Clemens and Janine Hart

## ABSTRACT

Immigration to Germany has increased significantly since 2011, primarily due to the immigration of citizens from other euro area countries and those which joined the EU in 2004 and 2007. This increase is mainly attributable to a lack of immigration barriers and the good economic situation on the German labor market compared to other European countries. Model simulations show that GDP growth in Germany between 2011 and 2016 would have been 0.2 percentage points lower on average per year without EU immigration. However, structural barriers to immigration remain. Additionally, due to economic recovery and demographic changes in other EU countries, migration from the EU may not continue as strongly as before. It is therefore important to strengthen immigration incentives, such as by giving immigrants more opportunities to find employment matching their skills. In addition to EU immigration, the German economy may also benefit from facilitating access to the labor market for skilled workers from third countries.

Between 2011 and 2017, an average of around 1.5 million people immigrated to Germany every year. Immigration is divided into asylum immigration, where individuals are fleeing war or political persecution to apply for asylum in Germany, and non-asylum immigration, where individuals are coming to Germany in hopes of employment, a better life, or to join family. In Germany, non-asylum immigration has been higher than asylum immigration every year since 2011, although refugees have dominated political and public debate in recent years. The largest share of all immigrants since 2011 are from other EU member states, mainly those that joined in 2004 and 2007<sup>1</sup> and other EU countries, especially Spain, Italy, and Greece. Over the past five years, significantly more individuals from Europe and the rest of the world not seeking asylum have immigrated to Germany, even though the country has long been a popular destination for immigrants.

This poses two central questions from a macroeconomic perspective: what factors are causing so many individuals—primarily EU citizens—to immigrate to Germany? And what influence has this immigration had on the German economy over the past few years?

These two questions will be answered here using a model analysis. Gross immigration figures are used in the first part of this report instead of the migration balance, whose explanatory power is limited as return migration is only partially recorded.<sup>2</sup> For the second part, the net immigration figures from the migration statistics of the Federal Statistical Office are used to take the underlying trend into account.

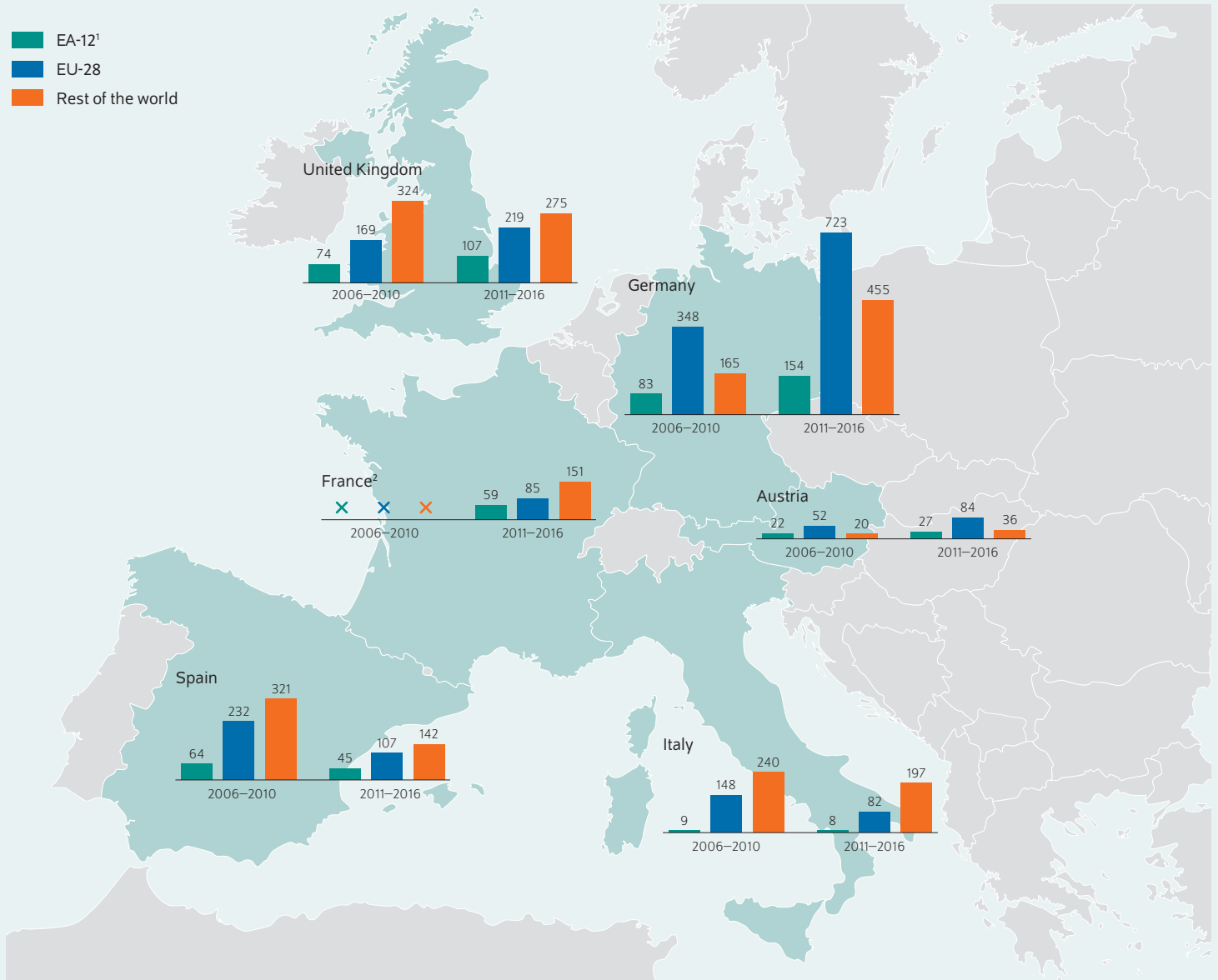
<sup>1</sup> On May 1, 2004, Estonia, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, the Czech Republic, Hungary, and Cyprus joined the EU. Bulgaria joined on January 1, 2007, followed by Croatia on July 1, 2013.

<sup>2</sup> The data come from the population register. While in principle all immigrants are required to register within three months of entering the country, individuals often do not deregister upon departure.

Figure 1

**Yearly average migration from the EU, the euro area, and the rest of the world to selected European countries 2004 to 2010 and 2011 to 2017, in thousands**

■ EA-12<sup>1</sup>  
■ EU-28  
■ Rest of the world



1 EA-12 refers to the twelve countries which joined the European Monetary Union in 2001 at the latest. Austria, Belgium, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, the Netherlands, Portugal, and Spain.  
 2 Statistics by origin available from 2013 only.

Source: German Federal Statistical Office, BAMF, OECD.

In no other European country has immigration risen as strongly as in Germany.

Table 1

**Immigration to Germany by origin**  
In thousands

	2004–2010 <sup>1</sup>	2011–2017 <sup>1</sup>	2011	2012	2013	2014	2015	2016	2017
<b>Total</b>	713	1,469	958	1,081	1,226	1,465	2,137	1,865	1,551
<b>Native</b>	122	129	117	115	118	122	121	146	167
<b>Foreigners</b>	597	1,340	842	966	1,108	1,343	2,016	1,719	1,384
<b>EU</b>	347	731	544	636	707	809	846	796	777
EA-12 <sup>2</sup>	82	153	117	147	166	169	164	158	149
Rest of EU	265	578	426	489	541	640	681	638	628
<b>Rest of the world (excluding the eight most frequent non-European countries of origins of refugees<sup>3</sup>)</b>	228	413	259	286	339	400	630	533	443
Rest of Europe	95	168	103	120	146	181	277	169	179
Africa	22	48	24	29	42	49	74	65	56
Americas	36	47	43	44	46	48	48	49	52
Asia	70	111	83	89	98	112	133	133	130
<b>Eight most frequent non-European countries of origin of refugees<sup>3</sup></b>	21	196	39	44	62	133	541	390	164
<b>Refugees<sup>4</sup></b>	28	251	46	65	110	173	442	722	198

1 Yearly average.

2 EA-12 refers to the 12 countries which joined the European Monetary Union in 2001 at the latest.

Austria, Belgium, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, the Netherlands, Portugal, and Spain.

3 Syria, Iraq, Nigeria, Afghanistan, Iran, Eritrea, Somalia, Pakistan.

4 Number of refugees based on applications for refugee status registered by the Federal Office for Migration and Refugees (BAMF).

Source: German Federal Statistical Office, BAMF.

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Table 2

**Share of foreigners in the German working age population by origin**  
In percent of the overall population of 15- to 74-year-olds

	2004–2010	2011–2017	2011	2012	2013	2014	2015	2016	2017
<b>Total</b>	9.3	12.0	9.9	10.4	11.0	11.7	12.8	13.8	14.5
<b>Native</b>	3.3	5.2	3.8	4.1	4.9	5.3	5.7	6.0	6.6
<b>From</b>									
EA-12	2.1	2.4	2.2	2.3	2.4	2.4	2.5	2.5	2.7
Rest of the EU	1.2	2.8	1.6	1.9	2.5	2.9	3.2	3.5	3.9
<b>Rest of the world without eight most important refugee countries<sup>1</sup></b>	5.8	6.0	5.8	5.9	5.6	5.8	6.1	6.2	6.3
<b>From</b>									
Non-EU Europe	4.1	4.0	4.1	4.2	3.9	3.9	4.0	3.9	3.9
Africa	0.4	0.5	0.4	0.4	0.4	0.5	0.6	0.7	0.7
Americas	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4
Asia	0.9	1.0	0.9	0.9	0.9	1.0	1.0	1.1	1.1
<b>Eight most frequent non-European countries of origin of refugees<sup>1</sup></b>	0.2	0.9	0.3	0.4	0.4	0.5	1.0	1.6	1.7

1 Syria, Iraq, Nigeria, Afghanistan, Iran, Eritrea, Somalia, Pakistan.

Source: German Federal Statistical Office, BAMF.

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**EU immigration to Germany has increased significantly**

Migration flows do not only follow long-term trends; they are also subject to short-term fluctuations.<sup>3</sup> The migration patterns within Europe have changed considerably as a result of

granting workers the right of free movement within the EU.<sup>4</sup> There was also increased migration from southern Europe in the wake of the euro crisis. Overall, no other European country experienced such a large growth in immigrants from other European countries as Germany (Figure 1).

<sup>3</sup> See Michel Beine, Pauline Bourgeon, and Jean-Charles Bricongne, "Aggregate Fluctuations and International Migration," *Scandinavian Journal of Economics* (forthcoming); Robert C. M. Beyer and Frank Smets, "Labour Market Adjustments and Migration in Europe and the United States: How Different?" *Economic Policy* 30, no. 84 (2015): 643-682.

<sup>4</sup> Existing EU member states had the option of restricting access to the labor market for a limited period of time by introducing transitional rules. Since 2011, full freedom of movement for workers has applied to all countries that joined the EU in 2004 and to Bulgaria and Romania as well since 2014.

On average, more than 700,000 EU citizens have immigrated to Germany every year since 2011, with as many as 850,000 in 2015 alone. Between 2011 and 2017, over five million individuals from other EU countries came to Germany, comprising around half of all immigrants ([Table 1](#)).

Almost 90 percent of all non-asylum-seeking immigrants are between 15 and 74 years old, i.e., of working age. Foreigners thus account for an increasing share of the population in this age group.<sup>5</sup> Since 2011, the share of foreigners<sup>6</sup> has increased by 4.6 percentage points to 14.5 percent in 2017 ([Table 2](#)). Around one third of this increase is due to immigrants from the eight most frequent countries of origin for asylum seekers,<sup>7</sup> who comprised 1.7 percent of the total population in 2017. In contrast, the share of EU citizens rose by 3.5 percentage points to almost seven percent of the entire population.

As shown by the results of a special survey conducted in 2014,<sup>8</sup> EU immigrants' most important reason for immigrating is to take up employment in Germany. In contrast, the group of non-EU immigrants name family reasons to be the predominant motive for immigration. EU immigrants have even higher labor force participation rates than Germans. This is related to the age structure: foreign workers are younger than Germans. The participation rate of EU immigrants has risen steadily in recent years ([Figure 2](#)).

The unemployment rate of foreigners is relatively high but varies considerably according to the region of origin. However, the unemployment rate for EU citizens has fallen parallel to the good situation on the labor market to a similar extent as for Germans. In the euro area as a whole, unemployment rates rose until 2013 and then declined gradually to a level that remains significantly higher than in Germany ([Figure 3](#)).

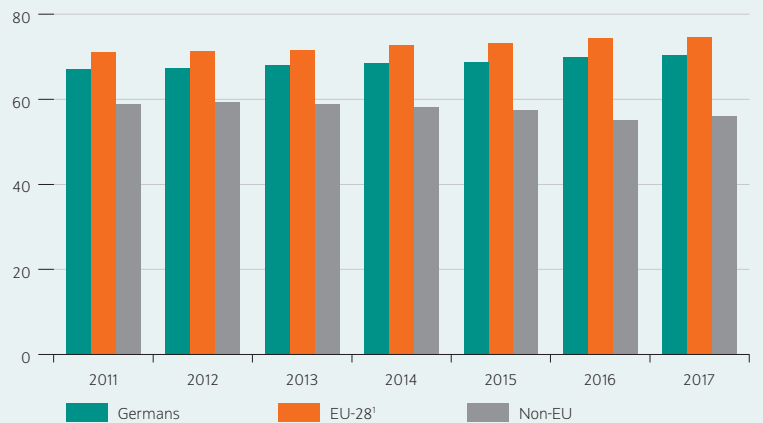
### High number of EU immigrants to Germany due to the comparatively positive labor market situation

A more detailed analysis in a panel estimate shows that both structural and cyclical factors influence migration flows ([Box 1](#)). While structural factors such as a common language, geographical proximity, income disparities, and, above all, the removal of barriers to the labor market influence immigration, cyclical migration is characterized by differences in the cyclical dynamics of wages and, in particular, employment opportunities.

However, the relationship between migration and the economy is not one-sided. The good state of the German labor

Figure 2

### Labor market participation rate in Germany By origin, 2011 to 2017



<sup>1</sup> Without German citizen.

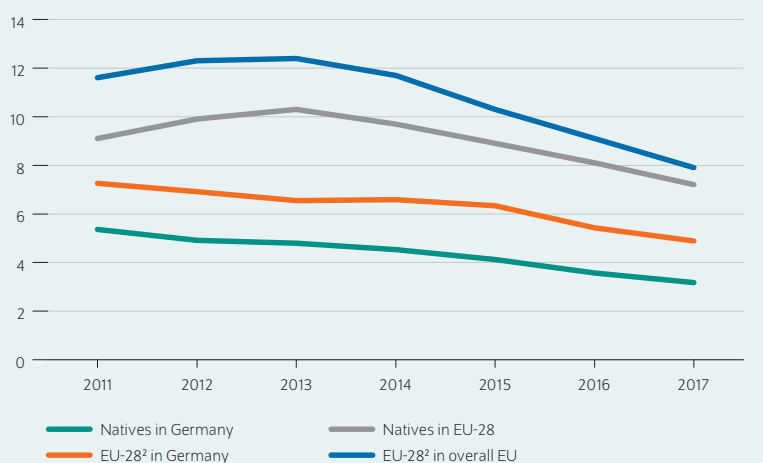
Source: Eurostat.

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The labor market participation rate of EU citizens is higher than that of Germans and has risen in recent years.

Figure 3

### Unemployment rate<sup>1</sup> in Germany and the EU By origin, 2011 to 2017, in percent



<sup>1</sup> As defined by the International Labor Organization.

<sup>2</sup> EU-28 excluding the country of reference.

Source: Eurostat.

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EU citizens have significantly more employment opportunities in Germany than in other EU countries.

<sup>5</sup> See Statistisches Bundesamt, "Bevölkerung und Erwerbstätigkeit: Ausländische Bevölkerung Ergebnisse des Ausländerzentralregisters," *Fachserie 1 Reihe 2* (2017) (in German; available online; accessed October 22, 2018; this applies to all other online sources in this report unless stated otherwise).

<sup>6</sup> The share of foreigners is defined as the share of 15- to 74-year-old foreigners in the total group of 15- to 74-year-olds.

<sup>7</sup> Syria, Iraq, Nigeria, Afghanistan, Iran, Eritrea, Somalia, and Pakistan.

<sup>8</sup> See Eurostat, *EU Labour Force Survey* (2014) (available online).

Box 1

**Determinants of immigration to Germany**

A panel estimate examined the influence of Germany's relative economic development and the most important countries of origin on net immigration to Germany between 1995 and 2016 (Table). Various definitions of "country of origin" are used in order to account for differences in migration patterns. The largest country sample comprises 45 countries and includes all OECD countries (including all EU-28 countries) as well as other important countries of origin. Additionally, the country sample was limited to the European Union and the euro area.

Table

**Influence of relative economic development in Germany and the most important countries of origin on net immigration to Germany**

1995 to 2016, panel estimation results

Determinants of the net immigration rate <sup>1</sup>	1	2	3
Real wage differential	0.129***	0.658***	0.432
Unemployment rate differential	-0.187***	-0.233***	-0.292***
Distance (log, in km <sup>2</sup> )	-0.102***	-0.09**	-0.438***
EU entry (1=year of entry)	0.201***	0.189***	
Schengen (1=year of entry)	0.161*	0.196***	0.238***
Common currency (1=year of introduction)	0.07***		
Time fixed effects	Y	Y	Y
Country fixed effects	Y	Y	Y
Time period	1995–2016	1995–2016	1995–2016
Country set	OECD + main countries of origin (ROW)	EU-28	EA-12
R-squared	0.72	0.7	0.67
Observations	827	513	220

1 Net immigration rate is defined as the ratio between immigration and emigration weighted by the population of the country of origin.

2 Real wage and unemployment rate differentials are measured as log ratios.

Significance levels \*\*\*, \*\*, \* indicate the significance of the respective determinants on the one, five and ten percent level.

Source: OECD, United Nations statistics on migration, national statistical offices.

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The data used were OECD migration figures and the UN's Bilateral Migration Database, which defines migrants based on their nationality.

The specifications are based on estimating equations common in the literature<sup>1</sup> and account for structural factors such as a common language, geographical proximity, and the permission to work in

<sup>1</sup> See Anna Maria Mayda, "International Migration: A Panel Data Analysis of the Determinants of Bilateral Flows," *Journal of Population Economics* 23, no. 4 (2010): 1249-1274 and Beine, Bourgeon, and Bricogne, "Aggregate Fluctuations and International Migration."

Germany (free movement of workers). Moreover, the net wages (adjusted to account for relative purchasing power) and unemployment rate in Germany relative to the country of origin are taken into account.<sup>2</sup> While aggregate wages fluctuate only slightly in the short term, unemployment rates also reflect short-term cyclical fluctuations and can therefore depict cyclical immigration.

All estimates contain fixed effects for years and countries of origin, thus controlling for the attractiveness of alternative countries, which can affect immigration to Germany.<sup>3</sup>

The signs of the estimated coefficients correspond to the expected values. As geographical proximity decreases, so does immigration to Germany; however, reducing barriers to the labor market and belonging to the EU and/or the Economic and Monetary Union of the EU had a positive influence on immigration to Germany.

In addition to structural factors, relative economic development influences migration patterns. The real wage gap, which is attributed to long-term factors, has a positive impact on immigration to Germany, but this is not significant in the case of euro area countries.<sup>4</sup> The wage elasticity of immigration is comparatively low in the broadly-defined group of origin countries and points to the importance of immigration barriers in other countries.<sup>5</sup> Moreover, short-term factors influence migration patterns. In all countries, there is a significant negative correlation between the difference in the unemployment rate and immigration to Germany. Depending on the country, a 10 percent lower difference in the unemployment rate the previous year is accompanied by 1.87 to 2.9 percent higher net immigration from the country of origin if all other factors remain constant. Overall, our study shows that migration patterns in the euro area and European Union are cyclical.

<sup>2</sup> These data are introduced with a delay of one period, i.e., predetermined, to exclude the influence of migration variables on them.

<sup>3</sup> See Simone Bertoli and Jesús Fernandez-Huertas Moraga, "Multilateral resistance to migration," *Journal of Development Economics* 102, issue C (2013): 79-100.

<sup>4</sup> Our DSGE model offers one possible explanation for this, in which a positive technology shock is initially accompanied by rising wages and negative net migration. With other (demand-side) economic shocks, wages rise and net migration is positive.

<sup>5</sup> Germany's previously restrictive immigration policy towards third-state nationals can explain the low value. See Mayda, "International Migration," for a correction regarding the influence of bilateral migration agreements.

## Box 2

**Model for estimating the contribution of immigration to GDP development**

The present study on the macroeconomic effects of migration is based on an estimated two-country dynamic stochastic general equilibrium model (DSGE model). In the model, the decision to immigrate is microfounded. When deciding whether or not to immigrate, households do not only consider the labor market situation in each country (wages and unemployment rate) but also the future development of these push and pull factors as well as costs that arise during the immigration process (bureaucratic obstacles, moving costs, visa fees).

Companies in both countries hire both domestic and foreign workers and in every quarter, a certain share of members from the domestic household are living abroad. This share changes due to exogenous disturbances. Household members always immigrate to the other country when the difference between the wages rises or the unemployment rate falls. This increases the share of immigrants in the total population in the destination country and the migration balance is positive.

The rest of the model essentially corresponds to the New Keynesian macroeconomic equilibrium model already presented in other studies.<sup>1</sup> There is a horizontal value-added structure in which domestic intermediate and final goods are produced using labor and physical capital. The domestic final good consists of do-

<sup>1</sup> See Frank Smets, Rafael Wouters, and Jordi Gali, "Unemployment in an Estimated New Keynesian Model," *NBER Macroeconomics Annual 2011*, Vol. 26 (2010).

mestic and foreign intermediate goods and is used for consumption and investment purposes. In addition, the state requests domestic goods. Frictions and rigidities on goods and labor markets lead to cyclical unemployment and inflation. The central bank applies a conventional interest rate policy to achieve price stability.<sup>2</sup>

In the model, in addition to classic economic shocks to supply and demand, rising labor force participation or an unexpected rise in nominal wages can also lead to a change in migration flows. Due to the adjustment costs, migration flows react only gradually to changes in economic variables at home and abroad; furthermore, the migration response is stronger in the event of major and persistent shocks. Unexpected changes to these costs, such as facilitating labor market entry in the destination country, could make migration more attractive.

The model parameters were estimated with Bayesian methods using data for a total of 17 (Germany and euro area) and 18 (Germany and the EU) macroeconomic variables for the period between the first quarter of 1996 and the fourth quarter of 2016.<sup>3</sup>

<sup>2</sup> The European Central Bank's key interest rate is used at the shadow rate to estimate the low-interest phase between 2012 and 2016. See Jing Cynthia Wu and Fan Dora Xia, "Time-Varying Lower Bound of Interest Rates in Europe," Chicago Booth Research Paper no. 17-06, 2017.

<sup>3</sup> Some parameters that cannot be observed in reality (such as the time preference and depreciation rates) are calibrated so that certain macroeconomic variables (real interest rate, capital intensity) correspond to their observable long-term equilibrium value.

market may be a motivation for immigrating to Germany but to a certain extent, it may be a result of the immigration as well. To identify how much the situation on the labor market affects decisions to immigrate to Germany and the degree to which immigrants later contribute to GDP growth, a structural dynamic macroeconomic equilibrium model that reflects immigration between Germany and the EU was developed (Box 2).

The model was estimated and simulated for the euro area and the EU separately. The data used are quarterly figures from the first quarter of 1996 to the fourth quarter of 2016, which are taken from the national accounts and the OECD's Economic Outlook, as well as net immigration figures from the migration statistics of the Federal Statistical Office.<sup>9</sup>

Various supply-side and demand-side changes, such as an increase in government expenditure, are examined. In addition to the typical driving forces of the economy, labor market-specific shocks, such as an increase in employees' wage-setting power or a change in households' labor supply behavior, are also taken into account. A migration-cost

shock can also be considered an improvement compared to existing models. Migration costs include the actual moving costs (including visa fees and bureaucratic costs) as well as the combined monetary value of all factors, whether they be legal or psychological, that make immigration difficult. The introduction of free movement of workers represents such a migration-cost shock, as does, for example, the introduction of direct flight connections between two countries.

According to this calculation, EU immigration to Germany has been procyclical over the past few years. Demand shocks explain 37 percent of cyclical migration<sup>10</sup> and a further 23 percent can be explained by supply-side changes (Figure 5). Both factors influence the situation on the labor market and therefore indirectly lead to migration. Changes to the labor market that directly influence the decision to immigrate explain around 24 percent of cyclical migration. Additionally, the development of immigration costs explain 16 percent of EU immigration, a noticeable share, and around 11 percent of immigration in the euro area. Moreover, looking at the longer period between 1980 and 2016,<sup>11</sup> it can be seen that the migration costs were almost three times as high as in

<sup>9</sup> Assuming the deregistration rate amongst emigrants remains stable over the cycle, the explanatory power of the percentage change is not affected by the incomplete recording of return migration.

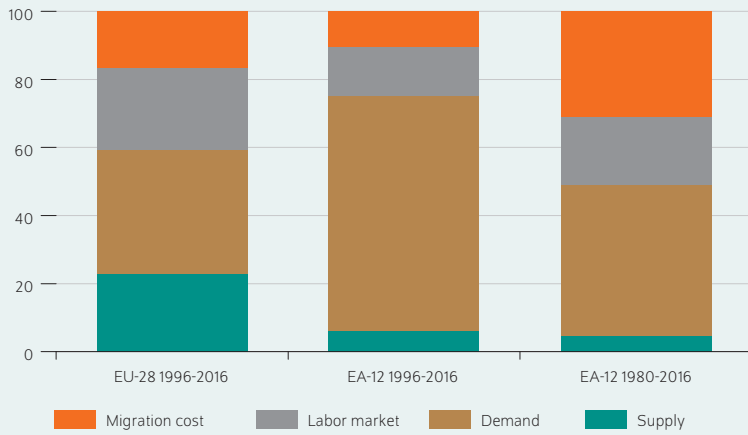
<sup>10</sup> The model depicts cyclical migration, the fluctuations in net immigration around a long-term trend.

<sup>11</sup> There is no quarterly data for before the year 1995 for countries that joined the EU in 2004.



Figure 4

**Contribution of different shocks to EU and EA-12<sup>1</sup> net immigration to Germany**



1 EA-12 refers to the 12 countries that belonged to the currency union from its creation in 1999: Austria, Belgium, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, the Netherlands, Portugal, and Spain.

Source: OECD Economic Outlook, AZR, German Federal Statistical Office, authors' own calculations.

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Economic factors explain a large part of the increased EU migration to Germany.

the period between 1996 and 2016. This suggests that removing immigration barriers—in particular by easing access to labor markets—increases the influence of economic factors on migration.

**Economic immigration stabilizes wage dynamics and boosts economic growth**

The model can also be used to perform a counterfactual simulation to investigate how immigration has influenced economic dynamics. It is assumed that domestic and foreign workers have comparable levels of productivity.<sup>12</sup> The counterfactual simulation utilizes a restriction on immigration that limits the migration surplus to 150,000 individuals per year.<sup>13</sup>

The calculations show that GDP growth at the peak of EU immigration in 2015 would have been a good 0.3 percentage points lower (Figure 6)<sup>14</sup>—only 1.2 percent instead of 1.5 percent.

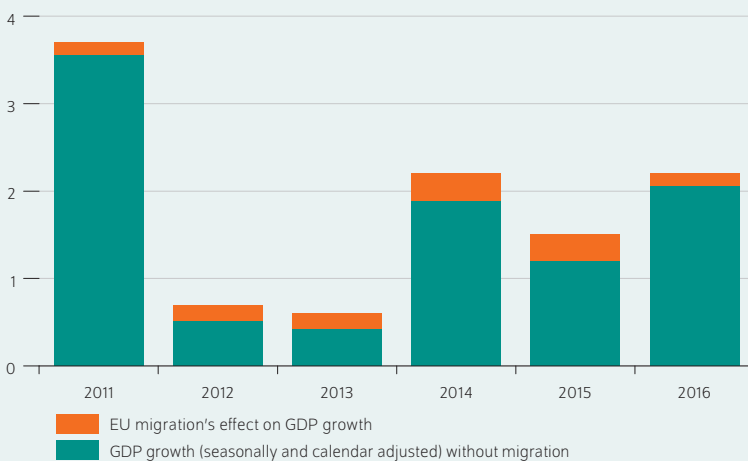
Without economic immigration, companies experiencing an upswing would have had even more difficulties finding workers. In the short term, it would not have been easy for companies to compensate for the labor shortage with longer working hours or an increased use of physical capital. As a result, the bottleneck would have resulted in increased wage pressure. Wages would not have risen immediately due to short-term rigidities in the labor market. However, the positive wage expectations would have influenced prices, as companies are trying to pass the rising production costs onto consumers. Additionally, the higher immigration has increased the overall demand. With higher production costs, higher inflation rates, and lower consumption demand, the real GDP growth would have been lower by an average of 0.2 percentage points per year.<sup>15</sup>

**Conclusion**

This analysis focuses primarily on the short- to medium-term causes and effects of immigration. It shows that the comparatively good labor market situation in Germany has attracted workers from other European countries. This immigration partly compensated for labor market bottlenecks and further boosted the upswing. However, there are still structural barriers making economic immigration difficult.<sup>16</sup>

Figure 5

**Business cycle effect of EU immigration to Germany between 2011 and 2017, in percentage points**



Source: OECD Economic Outlook, AZR, German Federal Statistical Office, authors' own calculations.

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Without migration from the EU, Germany's GDP growth would have been around 0.3 percentage points lower in 2015.

<sup>12</sup> In accordance with microeconomic studies, it is assumed that domestic and EU skilled workers have an elasticity of substitution of seven. The elasticity of substitution measures to what degree workers can be replaced by others with productivity levels remaining the same. It is assumed that workers are replaceable beginning at a value of one. Cf. Herbert Brücker et al., "Migration and imperfect labor markets: Theory and cross-country evidence from Denmark, Germany and the UK," *European Economic Review* 66 (2014): 205-225.

<sup>13</sup> This number corresponds with the average immigration figures since 2004 and is based on the long-term equilibrium value assumed in the Federal Statistical Office's population projection.

<sup>14</sup> Parameter uncertainty is indicated by the 90-percent interval for single parameters, from which 90-percent confidence bands for the impulse response functions of the gross domestic product are derived. Both can be provided by the authors on request.

<sup>15</sup> Compared to a scenario without a migration surplus, the effect of migration on the average yearly growth rate is twice as high.

<sup>16</sup> Cf. Mai Dao, Davide Furceri, and Prakash Loungani, "Regional Labor Market Adjustment in the United States and Europe," IMF Working Paper no. 14/26, 2015 (available online); Beyer and Smets, "Labour Market Adjustments and Migration."

Additionally, the labor market situations in many other EU countries have improved, thereby reducing the incentives to immigrate and increasing immigrants' motivation to return to their home country. Like many other EU countries, Germany faces a long-term demographic challenge which can be overcome with increased immigration.

From an economic policy perspective, it is therefore important to dismantle the remaining barriers to immigration and to attract more immigrants.<sup>17</sup>

Even if there are no legal restrictions for EU immigrants, the decision to immigrate depends on the employment opportunities as well as the expected income opportunities in Germany. These opportunities are still limited due to the fact that it is difficult for some immigrants to find jobs matching their qualifications.<sup>18</sup>

Political responses should therefore focus on improving labor market access. This is possible in many ways: by improving the procedures for recognizing foreign vocational training and degrees, simplifying access to German language courses abroad, and above all, increasing the appeal of attending

university in Germany. If it is possible to attract a large number of young foreigners to complete a vocational training program or attend university in Germany, the number of foreign workers who are looking for and find a job matching their qualifications will continue to rise.

In addition to lowering the immigration costs for EU immigrants, it could also be beneficial to the German economy to facilitate labor market access for workers from non-EU countries. The German federal government has therefore decided to introduce an immigration law<sup>19</sup> for skilled workers who are third-country nationals with a university degree or qualified vocational training. It is assumed that the immigration law will reduce immigration costs, thus increasing the immigration of skilled workers from third countries to Germany as a result and, similar to migration patterns within the EU, react more strongly to economic factors.

In addition to economic immigration incentives, recruiting skilled workers from both the EU and third countries requires a comprehensive immigration culture that views immigration not as a problem but as a welcome opportunity.

<sup>17</sup> See Nina Neubecker, Marcel Fratzscher, and Carolin Linckh, "Migration in der Europäischen Union," *DIW Wochenbericht*, no. 30 (2014) (in German; available online) for an overview of the main barriers to migration in the EU.

<sup>18</sup> See Ehsan Vallizadeh, Joan Muysken, and Thomas Ziesemer, "Migration, Unemployment, and Skill Downgrading: A Specific-Factors Approach," *Scandinavian Journal of Economics* 117, no. 2 (2015).

<sup>19</sup> Cf. Bundesministerium des Innern, *Eckpunkte zur Fachkräfteeinwanderung aus Drittstaaten vom 2. Oktober 2018* (2018) (in German; available online). In contrast to the EU-wide regulation, the "Eckpunkte" in this document are not only aimed at highly qualified workers in certain bottleneck occupations. The main improvements are the possibility of staying in Germany for six months when looking for a job and the establishment of a clearing house to check the comparability of qualifications.

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