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# DISKUSSIONSBEITRÄGE DISCUSSION PAPERS

Recent German Migration Laws: A Contribution to Fiscal Sustainability

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## **Recent German Migration Laws: A Contribution to Fiscal Sustainability**

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## **Recent German Migration Laws: A Contribution to Fiscal Sustainability**

The German government recently adopted a large number of changes in migration legislation related to asylum seekers and refugees who have immigrated since 2015. While some reforms may have more socio-political impacts, most also have fiscal implications. This work analyses the effects of individual legislative changes on the German fiscal system based on the established method of generational accounting. The results show that these laws likely will have overall positive effects on future German public finances. They also stress the importance of successful integration in general and the positive financial contributions from the immigration of relatively young, skilled workers.

Keywords: immigration, law reform, fiscal sustainability

Subject classification codes: E62, F22, H68, K37

#### **INTRODUCTION**

In early July 2019, the German legislatures Bundestag and Bundesrat passed a series of new migration laws. These laws emerged against the background of high levels of immigration from outside Europe in 2015 and 2016 and can be seen as the Federal Government's response to changes in the (domestic) political situation. This immigration, unprecedented in size and structure, undoubtedly has accelerated changes in the political landscape of Germany and Europe as a whole and, in particular, fed the recently increasing popularity of populist parties throughout Europe (Otto and Steinhardt 2017; Steinmayr 2017).

The adoption of new laws described as stricter by the federal minister of the interior (Federal Ministry of the Interior 2019), therefore, was expected, especially as public anxiety about immigration has recently become the biggest concern of the German population. For instance, when asked about the country's biggest challenge, 83% of Germans named the immigration situation (GfK Verein 2018).

These new laws could ease this heated mood, but their financial and economic impacts are not easy to determine. In recent years, many studies have dealt with the effects of migration on economic growth (Bove and Elia 2017; Piras 2011), the labour market (Ceritoglu et al. 2015; Peri 2016; Borjas 2013; Dustmann, Frattini, and Preston 2013; Dustmann, Schönberg, and Stuhler 2017; Guzi, Kahanec, and Mýtna Kureková 2014) and fiscal sustainability (Ruist 2015; Bahnsen, Manthei, and Raffelhüschen 2016; Manthei and Raffelhüschen 2018). However, for most studies, the results are very much dependent on the nature of migration, characteristics of migrants and country of immigration. An independent investigation of the effects of the adopted laws, therefore, is necessary.

This work focuses on the fiscal impacts. The individual laws thus are discussed in detail and divided into scenarios, which are then analysed using the established method of generational accounting to enable examining their effects on the German fiscal system. In addition, the ways in which individual effects arise can be derived from the results. It, therefore, is possible to discuss the impacts in detail and draw possible conclusions for future legislation.

For this purpose, a description of the individual laws is given in the following THE LEGISLATIVE PACKAGE section. The section METHOD, DATA AND SCENARIOS then provides a description of the methodology, its theoretic implications, the data used, and the scenario derivation. The results are then presented and analysed in the RESULTS section. The

CONCLUSION section concludes the analysis and provides a final evaluation of the legislative package.

#### THE LEGISLATIVE PACKAGE

The Federal Government's legislative package Ordnung, Steuerung und Begrenzung von Migration (Regulation, Control and Limitation of Migration) consists of five individual law reforms: Fachkräfteeinwanderungsgesetz (Skilled Labour Immigration Act; SLIA), Geordnete Rückkehr Gesetz (Orderly Return Act; ORA), Gesetz zur Entfristung des Integrationsgesetzes (insbes. Wohnsitzregelung; Residence Regulation Confirmation Act; RRCA), Gesetz über Duldung bei Ausbildung und Beschäftigung (Toleration for Education and Employment Act; TEEA) and Zweites Datenaustauschverbesserungsgesetz (Second Data Exchange Improvement Act; SDEIA).<sup>1</sup> In addition to these five law reforms, this study includes the Ausländerbeschäftigungsförderungsgesetz (Foreigners Employment Promotion Act; FEPA).

The aim of the SLIA is to regulate immigration by third-country qualified workers. For this purpose, the law treats as equal fully trained specialists and university graduates (Bundesregierung 2019). Other aims of the SLIA include reducing administrative burdens, speeding up recognition procedures for educational achievements, improving language training support and expanding overseas promotional activities for the purpose of recruitment (Federal Ministry of the Interior 2019).

The intent of the ORA is to increase deportations of rejected asylum seekers who do not voluntarily leave after their asylum procedure ends. Primarily, the law diminishes existing obstacles to the implementation of deportations; for example, it reduces problems obtaining travel documents and prevents the disappearance of deportees (Federal Ministry of the Interior 2019). This law can be seen as a response to the German public's concerns about immigration and its (negative) consequences.

<sup>&</sup>lt;sup>1</sup> The laws introduced are revisions of existing statutes such as the Act on the Residence (Gesetz über den Aufenthalt, die Erwerbstätigkeit und die Integration von Ausländern im Bundesgebiet). Official English translations often do not exist, so the author translated the German titles into English for this study.

The RRCA is more of a confirmation of a law already existing before. It lays down the residence regulation of \$12a of the *Act on the Residence*. Since there are no substantive changes, it will not be further investigated in the following sections.

The TEEA should achieve legal clarity for those living in Germany who do not have refugee status but are tolerated, as well as their employers (Federal Ministry of the Interior 2019).<sup>2</sup> Anyone who has worked in Germany for a certain amount of time, speaks German, lives lawfully and has integrated well will be granted an employment-dependent permit for 30 months. Whereas the other laws become effective shortly after adoption, the TEEA will take effect 1 January 2020.

The SDEIA is an administrative adjustment to the Ausländerzentralregister (Central Register of Foreign Nationals)<sup>3</sup> intended to improve data exchange among authorities for residence and asylum purposes (Federal Ministry of the Interior 2019). As an administrative adjustment, the SDEIA has no effects that can be modelled with generational accounting, so it is not analysed.

Unlike the other five laws, the FEPA includes a variety of measures. Explaining them in detail would go beyond the scope of this paper, but the most important can be summarised as follows. In the future, foreigners should receive not only social benefits from unemployment insurance and social assistance but also earlier access to the labour market (Bundestag 2019c). Furthermore, vocational training aid will be available to many foreigners. In particular, asylum seekers are now included (Bundestag 2019c).

### **METHOD, DATA AND SCENARIOS**

#### **Generational Accounting**

In this research, generational accounting is used to measure the long-term fiscal effects of the implementation of these migration laws.<sup>4</sup> This instrument allows assessing the long-term

<sup>&</sup>lt;sup>2</sup> Tolerated means, that they are either under subsidiary protection or are granted prohibition of extradition and deportation.

<sup>&</sup>lt;sup>3</sup> The Central Register of Foreign Nationals database has data on all foreigners residing in Germany for at least three months. It has about 26 million personal records (Bundesverwaltungsamt 2019).

<sup>&</sup>lt;sup>4</sup> Compared to many other methods, generational accounting has an important advantage. Although the magnitude of the results depends on the assumptions, as in other methods, the differences between scenarios are highly robust due to the *ceteris paribus* approach of generational accounting.

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implications of fiscal and social policy changes for current and future generations (Auerbach, Gokhale, and Kotlikoff 1991; 1992; 1994).<sup>5</sup> By utilising projected future demographic changes, generational accounting can demonstrate whether given tax and transfer policies are sustainable or will result in imbalances. To do so, this method projects general state payments (e.g. expenditures on goods and personnel), tax payments, social insurance contributions and transfers of current and future generations and discounts them to a reference year. Fiscal sustainability exists only if all future revenues are greater or equal to all future expenditures over an infinite time span. Otherwise, an intergenerational imbalance exists as current generations live at the expense of future generations.

In Western countries such as Germany, these fiscal imbalances usually result from an unsustainable social security system (Manthei and Raffelhüschen 2018; Bahnsen, Manthei, and Raffelhüschen 2016; 2017). The German social security system consists of three main social insurance schemes: pensions (Gesetzliche Rentenversicherung; GRV), health insurance (Gesetzliche Krankenversicherung; GKV) and long-term care insurance (Soziale Pflegeversicherung; SPV). All three insurance schemes can be characterised as pay-as-you-go systems in which annual revenue is used to finance the same year's expenditure.<sup>6</sup> Thus, in simple terms, the product of the *number of contributors* \* *average income* \* *contribution rate* must be equal to the product of the number of recipients \* average transfer payment. A constant demographic structure makes a pay-as-you-go system sustainable. However, due to the current double aging process in Germany-increasing life expectancy and a low birth rate-an imbalance will occur in the next decade. The German government will not be able to avoid increasing contribution rates, reducing transfer payments or supporting social insurances through tax subsidies. Increased average wages will not provide sufficient relief due to the direct dependence of pension levels on wage developments. Another possible means to at least alleviate the consequences of the double aging process is immigration of young workers, which would at least counteract the imbalance in the distribution of contributors and pensioners. However, whether immigration can actually provide fiscal relief is explored in the analysis in the **RESULTS** section.

<sup>&</sup>lt;sup>5</sup> For a detailed description of the method used and a critical reflection on it, see Manthei and Raffelhüschen (2018) and Feist and Raffelhüschen (2000).

<sup>&</sup>lt;sup>6</sup> All three schemes are not fully pay-as-you-go systems as they have liquidity reserves. The SPV also has a demographic reserve (Pflegevorsorgefond) to diminish demographic effects.

For this purpose, this work uses a variant of the generational accounting modified by Manthei and Raffelhüschen (2018). Their approach allows differentiating the productivity of nationals and foreigners. These differences become visible when comparing the average age-dependent net payments of nationals and foreigners (Figure 1). They result, for example, from lower average education levels and shorter working lives of foreigners.



NOTE: The two curves illustrate the difference in payments made to the state (e.g. taxes and contributions) by each age cohort differentiated by nationality and payments received from the state by each age cohort (e.g. social security benefits). These payments are calculated based on data from the Research Data Centre of the Statistical Offices of the Federal States (2015) and Socio-Economic Panel (SOEP; German Institute for Economic Research 2019).

In this context, immigration has two main effects. On one hand, immigrants' favourable (unfavourable) young (old) age structure can help (prevent) mitigation of the demographic consequences by increasing (decreasing) the ratio of contributors to recipients (positive [negative] demographic effect). On the other hand, a below-average (above-average) qualification structure can worsen (improve) the ratio of contribution payments to transfer payments (negative [positive] structural effect). To break down the effects of the individual migration laws, it, therefore, is important to analyse whether they trigger demographic and structural effects that possibly have either positive or negative connotations.

To measure the effects of the adopted migration laws, two types of indicators are calculated. First are intertemporal public liabilities (IPL), which include the explicit public debt

and the public sector liabilities not figured in official statistics but guaranteed by current laws.<sup>7</sup> The prime examples of these implicit liabilities are pension claims accrued by the labour force during their working life. In generational accounting, IPL exist when future revenues are insufficient to finance today's debts and future expenses. Increased IPL due to a certain migration law reform indicates a decrease in total or aggregated sustainability.

To determine whether a certain migration law reform indeed negatively affects nationals, or a slight increase in debt, due to the migration law reforms, is borne by more people, it is necessary to calculate the per capita effects, represented by a second group of indicators: necessary tax and contributions adjustments (NTCA). They refer to the percentage by which all taxes and contributions need to be increased immediately to close the long-term sustainability gaps described by the IPL, consisting of accounted (explicit) and unaccounted (implicit) public debt. Increased NTCA implies negative per capita effects and thus negative consequences for nationals.

#### **Data Overview and Assumptions**

The generational accounting calculations are based on a 300-year population projection using the second main variant of the 14<sup>th</sup> coordinated population projection of the Federal Statistical Office of Germany (2019a). All per capita tax payments, social insurance contributions, transfers and other payments by current and future generations are calculated mainly based on the German National Accounts, which include data through 2018, chosen as the reference year.<sup>8</sup> A real growth rate of 1.5% and a real discount rate of 3% are used,<sup>9</sup> following Manthei and Raffelhüschen (2018).

To differentiate payments by age, sex and nationality (Figure 1), the relative tax and transfer payments of each cohort are derived from the SOEP and the Sample Survey of Income

<sup>&</sup>lt;sup>7</sup> Usually (e.g. Manthei and Raffelhüschen 2018), IPL are given as a percentage of GDP, but in this paper, they are given in billions of euros to make it easier for the reader to grasp the magnitude of the effects.

<sup>&</sup>lt;sup>8</sup> In addition to the National Accounts from which many figures are derived, numerous smaller data sources include Eurostat, GRV, GKV and SPV, among others.

<sup>&</sup>lt;sup>9</sup> Changing these parameters has large impacts on the results. For example, a lower discount rate increases the impacts of later periods due to the net present value method used in generational accounting. However, as long as both parameters are within plausible ranges, the qualitative statements of the results are retained (Feist and Raffelhüschen 2000).

and Expenditure (EVS).<sup>10</sup> While the total number of migrants per year depends on the assumptions in the respective scenarios, migrants' age structure is the same in all the calculations. Based on Federal Statistical Office of Germany (2019d) data, immigrants on average have a younger age structure.<sup>11</sup>

#### Scenario Derivation

#### Pre-law reforms

To estimate the fiscal effects of the legislative reforms, a comparison of the pre-law reforms scenario is used. It is assumed that net immigration to Germany will decrease linearly from 386,000 in 2018 to a long-term average of 206,000 in 2026. In the same period, the number of emigrants will also linearly decrease from 1.2 million to 585,000, the average number of emigrants over 1955–2018.

As in Manthei and Raffelhüschen (2018), a six-year integration period is assumed. This integration procedure is run based on a logarithmic adjustment process towards the average net payments of all foreigners (Figure 2). Which means that all immigrants remaining in the country are fully integrated after six years, but many are integrated much earlier.

<sup>&</sup>lt;sup>10</sup> The SOEP survey provides individual- and household-level micro statistics. The EVS collects household data on, for instance, all payments of each household and yields representative information on almost all the German population (Federal Statistical Office of Germany 2019b).

<sup>&</sup>lt;sup>11</sup> In the reference year 2018, the average age of immigrants in Germany was 30.5 years, while the average age of nationals was 44.3 years (Federal Statistical Office of Germany 2019d).

Figure 2 LOGARITHMIC INTEGRATION PROCESS



NOTE: The transfers curve illustrates the logarithmic adjustments of payments such as social assistance payments. The taxes curve includes, for instance, income tax and social security contributions. The SP level of 1 shows the average net payments of all foreigners.

This integration process is implemented in practice by assuming that newly arriving immigrants receive on average twice as much social assistance as already integrated foreigners living in Germany. Over the course of integration, the received average payments (transfers curve) decreases to the average level of foreigners. This assumption is intended to account for the costs of language courses, accommodations and food during, for instance, asylum procedures. Transfers such as health care insurance payments and child benefits do not follow any adjustment process.

Many newly arrived immigrants do not directly enter the labour market and thus pay no income tax or social security contributions. To account for this trend, the tax payments and social contributions of new immigrants are assumed to be zero at their arrival and then increase over time (taxes curve). The same pattern applies to social insurance payments.

#### Skilled labour immigration act

The SLIA is aimed at targeted recruitment of qualified workers (Bundestag 2019b), so it is assumed that these new immigrants on average are integrated more quickly into the labour market. Consequently, the average integration costs decrease while the average net tax payments increase during the integration process. It, therefore, is assumed that the logarithmic

adjustments of the taxes and transfers curves are half as strong. The taxes curve now has a starting point (SP) of 0.5, while the transfers curve's SP is 1.5 (Figure 3). To account for the shorter integration time, the integration period is reduced to four years.



Figure 3 LOGARITHMIC INTEGRATION PROCESS IN DIFFERENT SCENARIOS

#### Orderly return act

Even though the number of asylum applications per year decreases overall (222,000 in 2017 and 185,000 in 2018; German Federal Office for Migration and Refugees 2019a) and thus an expected decline in rejected asylum applications (232,000 in 2017 and 75,000 in 2018; German Federal Office for Migration and Refugees 2019a), it can be assumed that a certain number of applications and, consequently, rejections will be made annually. However, the future figures are unknown, so the scenario calculation assumes an annual number of rejected asylum applications of 50,000 from 2019 onwards. When also adding the 174,000 rejected applicants in 2016 and 92,000 in 2015 (German Federal Office for Migration and Refugees 2019a), this assumption yields a total of 673,000 people affected by the ORA until 2020.<sup>12</sup>

NOTE: The transfers curves illustrate the logarithmic adjustments of payments such as social assistance payments. The taxes curves include, for instance, income tax and social security contributions. The SP level of 1 shows the average net payments of all foreigners.

<sup>&</sup>lt;sup>12</sup> The number of people who actually have to leave the country is usually lower than the number of rejected asylum applications, but no reliable data on trends are available. Thus, both sizes are treated as equal in this study, which could lead to a slight overestimation of the effect.

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To model the ORA in the generational accounting framework, all persons who voluntarily emigrate and all those who have already been and would have been deported without a change in law must be deducted from this number. From 2015 to 2018, 99,490 people voluntarily emigrated, and 86,561 were deported (German Federal Office for Migration and Refugees 2019b; Bundestag 2016; 2017; 2018; 2019a). Almost half of the voluntary departures took place in 2016, while in 2018, the number fell to 16,000 (German Federal Office for Migration and Refugees 2019b). It, therefore, is assumed that in the future, an average of 16,000 people will voluntarily emigrate annually. The number of deportations has been fairly constant over the years, at around 22,000 cases (Bundestag 2019a; 2016; 2017; 2018). It, therefore, is assumed that even without the law, an average of 22,000 people would have been deported each year.

Until the law goes into effect, there will be about 400,000 rejected asylum seekers in Germany. It seems unrealistic that the ORA will result in all of them leaving the country in the few next years. It is more likely that the number of deportations will increase but remain at a manageable level. For the sake of simplicity, it is assumed that the long-term number of deportations will double. These additional 22,000 emigrants will lead to a net decrease of 10,000 rejected asylum seekers in Germany each year. The increase in emigration is modelled by increasing the number of emigrants by 11,000 in 2019, when the law became effective in the middle of the year. For all future years, the number of emigrants is higher by 22,000, so the long-term average number of emigrants is 607,000.

#### Toleration for education and employment act

Before the TEEA was introduced, tolerated asylum applicants had to leave Germany as soon as the reasons for their protection status disappeared, which was detrimental to their employers. In this scenario, therefore, it is assumed that some tolerated persons will be granted long-term residence permits. The law identifies 179,000 tolerated asylum applicants in Germany at the end of 2018 (Bundestag 2019c). As the number of newly tolerated asylum applicants decreases each year (178,000 in 2016 and 35,000 in 2018; German Federal Office for Migration and Refugees 2019a), a long-run average of 30,000 newly tolerated asylum applicants is assumed.<sup>13</sup>

<sup>&</sup>lt;sup>13</sup> The total of 16,000 in the first half of 2019 indicates that the number could be around 30,000 for all of 2019 (German Federal Office for Migration and Refugees 2019a).

There are no reliable figures on who actually benefits from the law, so it is assumed that half (15,000) will gain long-term residence permits and stay, while the other half will emigrate. It is impossible to predict when the reasons for toleration will disappear, so it is difficult to model these emigration movements. For the sake of simplicity, therefore, it is assumed that in this scenario, the number of emigrants will decrease linearly to a new long-term average of 570,000 in 2026.

#### Foreigners employment promotion act

Opening up social benefits to the majority of immigrants might increase the average integration costs as more people might apply for them. In this scenario, therefore, it is assumed that the transfers curve has a SP of 2.5 (Figure 3). At the same time, the imputed integration period decreases to four years as better integration and earlier labour market integration are goals of the law.

#### Post law reforms

To calculate the total fiscal effects of the examined changes in the laws, the post-law reforms scenario combines all the individual effects. For this purpose, the contradictory assumptions of the ORA scenario (22,000 additional emigrants a year) and the TEEA scenario (15,000 fewer emigrants in the long term) offset each other. The result is a new long-term number of emigrants of 592,000. In addition, the shorter integration period of four years in the SLIA and FEPA scenarios is adopted. Finally, the post-law reforms scenario includes the SP of 0.5 of the taxes curve from the SLIA scenario and the SP of 2.5 of the transfer curve from the FEPA scenario. Table 1 provides an overview of the chosen assumptions from the individual scenarios.

	Long-Term Number of Annual Emigrants	Integration Period	Starting Points of Integration
Pre-Law Reforms	585,000	6 years	2 (transfers) 0 (taxes)
Skilled Labour Immigration Act (SLIA)	585,000	4 years	1.5 (transfers) 0.5 (taxes)
Orderly Return Act (ORA)	607,000	6 years	2 (transfers) 0 (taxes)
Toleration for Education and Employment Act (TEEA)	570,000	6 years	2 (transfers) 0 (taxes)
Foreigners Employment Promotion Act (FEPA)	585,000	4 years	2.5 (transfers) 0 (taxes)
Post-Law Reforms	592,000	4 years	2.5 (transfers) 0.5 (taxes)

Table 1 OVERVIEW OF SCENARIOS

Note: For the TEEA, the change in the long-term number of emigrants results in an adjustment of the linear decrease of the number of emigrants. For the ORA, the number of emigrants in each year increases by 22,000 from 2019–2020 onwards. The linear adjustment thus is unaffected in this scenario. In the post-law reforms scenario, both effects coexist.

#### RESULTS

The results for the pre-law reforms scenario presented in Figure 4 show the situation of the German fiscal system before the introduction of the FEPA and the legislative package on migration. The explicit public debt and the implicit public liabilities added up to 8,390.8 billion euros.<sup>14</sup> For the sake of comparison, in the reference year 2018, the German gross domestic product (GDP) was 3,386 billion euros. Thus, the actual public debt not covered by future revenue surpluses was 2.5 times the GDP. The results of the other scenarios, therefore, reveal that the new migration laws have significant but not major impacts on the imbalance of German public finances. The SLIA has the largest impact of a 270.5 billion euro decrease in IPL. Given the average shorter integration time and the generally advantageous integration process, this improvement of 3.3% is not surprising.

<sup>&</sup>lt;sup>14</sup> In the reference year 2018, Germany's explicit public debt was 2,063 billion euros (Federal Statistical Office of Germany 2019c), while the implicit debt calculated with generational accounting added to 5,004 billion euros.

The assessment of the ORA and the TEEA reveals that a higher (lower) number of immigrants emigrating increases (decreases) the debt by 15.3 (9.7) billion euros. This increase (decrease) by +0.2% (-0.1%) indicates that, on an aggregated level such as the IPL, the demographic effect of the on average younger age structure of the migrants slightly dominates the structural effect of their on average lower net payments. Another explanation for this finding is the present value approach of the generational accounting. The first projection years have stronger effects on the results than the later years. Thus, the fact that immigrants have on average longer remaining working lives with positive net payments (Figure 1), is more important for the results, than on average lower net payments than nationals.

With a 81.6 billion euro debt reduction (-1.0%), the FEPA decreases IPL. This result shows that the effects of shortening the average integration time exceed the impacts of higher average integration costs. Taken together, all the reforms reduce the IPL by 217.7 billion euros (-2.7%). Thus, on the IPL level, the introduction of the legislative package on migration and the FEPA appears to positively influence the sustainability of the German fiscal system.





The previous analysis, on the IPL level, only provides information in absolute terms, but for the German population, the per capita effects pointed out by the NTCA are likely to be much more important. Before the introduction of the FEPA and the legislative package on migration, all taxes and social contributions needed to be increased by 11.44% to balance out the IPL in the long term (Figure 5). The introduction of the SLIA lowered the NTCA by 0.41 percentage points or 3.75%. It seems logical that an IPL decline (Figure 4) *ceteris paribus* will decrease the per capita burden. The same conclusions can be drawn for the FEPA. Here, too, a reduction in IPL while the population and migration figures remain constant results in an improvement of the NTCA by -0.13 percentage points (-1.1%).



NOTE: The results of the scenarios to the right of the vertical black line (SLIA through the post-law reforms) are compared with the pre-law reforms scenario left of the black line. Due to mutually influencing factors, the results of the SLIA through the FEPA do not add up to the results of the post-law reforms scenario.

The minimal increase (+0.01 percentage points) in NTCA from the ORA and the slight decrease from the TEEA (-0.01 percentage points) can, as above, be explained by the domination of the demographic over the structural effect. However, the ORA results at least should be considered with caution as it seems likely that persons to be deported often are not integrated and thus are less productive than foreigners on average.

Overall, the reforms of the legislative package on migration cause a 0.35 percentage point per capita relief for the German population (-3.1%). Thus, from a fiscal perspective and based on the IPL results, the laws adopted by the German parliament in July 2019 give overall and per capita relief to the German taxpayer.

Some conclusions can be drawn from the presented results. Among the less surprising results, a shorter integration time is advantageous. The finding that this reduction can outweigh possible higher integration costs is helpful. It proves that a more focused, financially richer effort to improve integration is in policymakers' interest. Another conclusion follows from the SLIA scenario results. An increase in the proportion of those immigrants who enter the labour market directly upon entry, expressed as a change of the SP of the taxes curve to 0.5, significantly improves the NTCA and IPL.<sup>15</sup> The generational accounting results thus highlight the positive effects of highly skilled immigrants. The domination of the demographic effect over the structural effect is another interesting finding. It implies that in certain circumstances, additional immigration can bring fiscal relief, especially in a country such as Germany, whose pay-as-you-go financing system is challenged by the effects of the double aging process.

#### CONCLUSION

That changes in migration policy are overdue can be concluded not only from the aforementioned statements of the federal minister of the interior. The adoption of new migration laws also appears necessary due to the unprecedented migration movement in 2015 and 2016 and the subsequent accelerating changes in the domestic political landscape. Whether these laws will satisfy the population remains to be seen. However, their fiscal impacts can already be estimated.

The results reveal that the adopted laws will lead to overall relief for the German fiscal system. The average per capita effects are positive from the perspective of the German population, which benefits from decreased (implicit) debt and lower future necessary tax adjustments. The analysis indicates that these improvements result from shorter, more effective integration enabled by greater financial contributions in the integration process and a stronger focus on highly qualified immigrants. The relatively young age structure of immigrants is beneficial and has positive effects.

Considering these findings, the guiding themes for formulating future migration laws should be support and demand. Regarding the former, greater integration support could reduce

<sup>&</sup>lt;sup>15</sup> This finding shows a comparison of the FEPA and post-law reforms scenarios, even if the number of emigrants varies slightly. The ORA and TEEA scenario results show that altered migration has significantly less effects than changing the SP.

the average integration time into the labour market, generating positive fiscal effects. Regarding the latter, such laws should be aimed at increasing the absolute and relative numbers of relatively young, qualified immigrants, which is possible only, in addition to intensive foreign advertising, if appropriate regulations are put in place to limit immigration by other demographic groups.

- Auerbach, Alan J., Jagadeesh Gokhale, and Laurence J. Kotlikoff. 1992. "Generational Accounting: A New Approach to Understanding the Effects of Fiscal Policy on Saving." *The Scandinavian Journal of Economics* 94 (2): 303–18.
- Auerbach, Alan J, Jagadeesh Gokhale, and Laurence J Kotlikoff. 1991. "Generational Accounts: A Meaningful Alternative to Deficit Accounting." *Tax Policy and the Economy* 5 (January): 55–110.
  - ——. 1994. "Generational Accounting: A Meaningful Way to Evaluate Fiscal Policy." *Journal of Economic Perspectives* 8 (1): 73–94.
- Bahnsen, Lewe Christoph, Gerrit Manthei, and Bernd Raffelhüschen. 2016. "Die Langfristigen Auswirkungen Der Flüchtlingsintegration Auf Die Fiskalische Nachhaltigkeit." Zeitschrift Für Staats- Und Europawissenschaften 14 (4): 483–502.
  - ——. 2017. "Deutschland, Quo Vadis? Neue Regierung, Alte Herausforderungen." Zeitschrift Für Staats- Und Europawissenschaften 15 (4): 657–70.
- Borjas, George J. 2013. "The Analytics of the Wage Effect of Immigration." *IZA Journal of Migration* 2 (1): 1–25.
- Bove, Vincenzo, and Leandro Elia. 2017. "Migration, Diversity, and Economic Growth." *World Development* 89 (January): 227–39.
- Bundesregierung. 2019. "Mehr Fachkräfte Für Deutschland." https://www.bundesregierung.de/breg-de/aktuelles/mehr-fachkraefte-fuer-deutschland-1563122 (accessed: August 5, 2019).
- Bundestag. 2016. "Antwort Der Bundesregierung: Abschiebungen Im Jahr 2015." *Drucksache* 18 (7588): 1–52.
  - . 2017. "Antwort Der Bundesregierung: Abschiebungen Im Jahr 2016." Drucksache 18 (11112): 1–60.
  - . 2018. "Antwort Der Bundesregierung: Abschiebungen Und Ausreisen Im Jahr 2017." Drucksache 19 (800): 1–68.
  - ——. 2019a. "Antwort Der Bundesregierung: Abschiebungen Und Ausreisen Im Jahr 2018." Drucksache 19 (8021): 1–88.
- . 2019b. "Entwurf Eines Fachkräfteeinwanderungsgesetzes." *Drucksache* 19 (8285): 1–176.
- ———. 2019c. "Entwurf Eines Gesetzes Über Duldung Bei Ausbildung Und Beschäftigung." Drucksache 19 (8286): 1–32.
- Bundesverwaltungsamt. 2019. "Ausländerzentralregister." https://www.bva.bund.de/DE/Das-BVA/Aufgaben/A/Auslaenderzentralregister/azr\_node.html (accessed: August 5, 2019).
- Ceritoglu, Evren, H Burcu Gurcihan Yunculer, Huzeyfe Torun, and Semih Tumen. 2015. "The

Impact of Syrian Refugees on Natives' Labor Market Outcomes in Turkey: Evidence from a Quasi-Experimental Design." *IZA Discussion Papers* 9348: 1–47.

- Dustmann, Christian, Tommaso Frattini, and Ian P. Preston. 2013. "The Effect of Immigration along the Distribution of Wages." *The Review of Economic Studies* 80 (1): 145–73.
- Dustmann, Christian, Uta Schönberg, and Jan Stuhler. 2017. "Labor Supply Shocks, Native Wages, and the Adjustment of Local Employment." *Quarterly Journal of Economics* 132 (1): 435–83.
- Federal Ministry of the Interior. 2019. "Migration Ordnen, Steuern Und Begrenzen!" https://www.bmi.bund.de/SharedDocs/pressemitteilungen/DE/2019/06/migrationspaket. html (accessed: June 10, 2019).
- Federal Statistical Office of Germany. 2019a. "Bevölkerung Deutschlands Bis 2060: Ergebnisse Der 14. Koordinierten Bevölkerungsvorausberechnung." Wiesbaden.
  - ——. 2019b. "Sample Survey of Income and Expenditure (EVS)." https://www.destatis.de/EN/Themes/Society-Environment/Income-Consumption-Living-Conditions/Income-Receipts-Expenditure/Methods/sample-survey-incomeexpenditure.html (accessed: August 8, 2019).

—. 2019c. "Volkswirtschaftliche Gesamtrechnungen 2018: Detaillierte Jahresergebnisse." Wiesbaden.

- ——. 2019d. "Wanderungen Zwischen Deutschland Und Dem Ausland: Deutschland, Jahre, Nationalität, Altersjahre." Wiesbaden.
- Feist, Karen, and Bernd Raffelhüschen. 2000. "Möglichkeiten Und Grenzen Der Generationenbilanzierung." *Wirtschaftsdienst* 80 (7): 440–48.
- German Federal Office for Migration and Refugees. 2019a. "Aktuelle Zahlen Zu Asyl (Juli 2019)." Nuremberg.
  - ------. 2019b. "Voluntary Return with REAG/GARP." http://www.bamf.de/DE/Infothek/Statistiken/FreiwilligeRueckkehr/freiwilligerueckkehr-node.html (accessed: August 8, 2019).
- German Institute for Economic Research. 2019. "Socio-Economic Panel (SOEP), Data from 1984-2017, Version: 34." Berlin.
- GfK Verein. 2018. "Challenges of Nations 2018 Eine Studie Des GfK Vereins." Nürnberg.
- Guzi, Martin, Martin Kahanec, and Lucia Mýtna Kureková. 2014. "The Impact of Demand and Supply Structural Factors on Native-Migrant Labour Market Gaps." In *KING Desk Research & In-Depth Study n.17*. Milan: ISMU Foundation.
- Manthei, Gerrit, and Bernd Raffelhüschen. 2018. "Migration and Long-Term Fiscal Sustainability in Welfare Europe: A Case Study." *FinanzArchiv* 74 (4): 446–61.
- Otto, Alkis Henri, and Max Friedrich Steinhardt. 2017. "The Relationship Between Immigration and the Success of Far-Right Political Parties in Germany." *Ifo DICE Report*

21

15 (4): 20–23.

- Peri, Giovanni. 2016. "Immigrants, Productivity, and Labor Markets." *Journal of Economic Perspectives* 30 (4): 3–30.
- Piras, Romano. 2011. "The Solow Growth Model With Endogenous Migration Flows and Congested Public Capital." *Economia Politica* 28 (2): 195–217.
- Research Data Centre of the Statistical Offices of the Federal States. 2015. *Einkommens- Und Verbrauchsstichprobe (EVS) 2013: Grundfile 5 - Haushaltsbuch (HB)*. Düsseldorf.
- Ruist, Joakim. 2015. "The Fiscal Cost of Refugee Immigration: The Example of Sweden." *Population and Development Review* 41 (4): 567–81.
- Steinmayr, Andreas. 2017. "Did the Refugee Crisis Contribute to the Recent Rise of Far-Right Parties in Europe?" *Ifo DICE Report* 15 (4): 24–27.

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