



# The fiscal impact of immigration

## A review of the evidence

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### Key messages

- The evidence offers no definitive answer as to whether migrants are net fiscal contributors or net burdens, as the fiscal impact of immigration is highly context-dependent.
- In general, the net fiscal impacts of immigration are minimal, hovering around plus or minus 0% of countries' GDPs, meaning that migrants contribute as much to public finances in taxes as they receive in benefits.
- This holds true in high-income and low- and middle-income countries (although the evidence base on the latter is scant). The evidence runs counter to negative public narratives that depict migrants as a strain on public finances and a threat to welfare systems.
- Fiscal impact depends on the characteristics of migrants, with young, in work, highly skilled migrants often representing considerable net gains to public finances.
- Fiscal impact also depends on the policy environment within host countries, including the extent to which labour markets absorb migrants, the informality of labour markets and migrants' rights to work and receive welfare benefits.



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# Contents

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<b>Acknowledgements</b>	<b>3</b>
<b>List of boxes, tables and figures</b>	<b>5</b>
<b>1 Introduction</b>	<b>6</b>
<b>2 Describing the evidence</b>	<b>7</b>
2.1 Geographical focus	7
2.2 Type of immigration covered	8
2.3 Methodological approaches	8
<b>3 What do we know about the fiscal impact of immigration?</b>	<b>11</b>
3.1 Main findings by region and country	11
3.2 An analytical model highlighting the factors influencing fiscal impact	12
<b>4 The fiscal impact of immigration: evidence from high-income countries</b>	<b>14</b>
4.1 Migrant characteristics	14
4.2 Host country characteristics	17
<b>5 Reflections on low- and middle-income countries</b>	<b>20</b>
5.1 The evidence base	20
5.2 Reflections on host country characteristics: low- and middle-income countries	21
<b>6 Conclusions and implications for policy</b>	<b>24</b>
6.1 Summary of the evidence	24
6.2 Evidence gaps	24
6.3 Implications for policy	24
<b>References</b>	<b>27</b>
<b>Annex 1 Repository of studies</b>	<b>32</b>

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# List of boxes, tables and figures

## Boxes

---

<b>Box 1</b>	Fiscal impact of refugees	<b>16</b>
--------------	---------------------------	-----------

## Tables

---

<b>Table 1</b>	The net fiscal impact of immigration in nine low- and middle-income countries	<b>21</b>
----------------	---	-----------

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<b>Table A1</b>	Repository of empirical studies, summarised by country focus, type of immigration, study type and fiscal impact	<b>32</b>
-----------------	---	-----------

## Figures

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<b>Figure 1</b>	Geographic coverage in the repository	<b>7</b>
-----------------	---------------------------------------	----------

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<b>Figure 2</b>	Methodological approaches in the repository	<b>9</b>
-----------------	---	----------

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<b>Figure 3</b>	Factors influencing the fiscal impact of immigration	<b>12</b>
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# 1 Introduction

Migration is increasingly recognised as an effective way to foster sustainable development: for migrants themselves, for their countries of origin and for host countries (Foresti and Hagen-Zanker, 2018). In host countries, migrants can fill important labour gaps, contribute to public service delivery and increase government revenues through taxes and social security contributions (Hagen-Zanker et al., 2017). However, all too often migrants are perceived as drains on public finances or as taking advantage of national welfare systems. In the United States (US), one recent report found that 49% agreed that immigration was bad for the country and costly for the welfare system, and consumed resources that could be spent on Americans (Hawkins et al., 2018). The view that migrants take more in services than they contribute in taxes is a key driver of anti-immigrant attitudes and encourages support for tighter immigration restrictions in Europe (Dustmann and Preston, 2007; Blinder and Markaki, 2018). Similar narratives are seen in middle-income countries. In South Africa, rising xenophobia is linked to anti-immigrant narratives portraying immigrants as

competitors in the welfare system (Tati, 2008) and labour market.

So, what is the fiscal impact of immigration in host countries? If migrants<sup>1</sup> pay more in taxes than they receive in benefits, they are net fiscal contributors and the host country is better off. If migrants contribute less in taxes than they receive in benefits, they represent a net fiscal burden.

This review brings together the existing empirical evidence on the fiscal impact of immigration.<sup>2</sup> It is the first to synthesise empirical studies from both high- and low- and middle-income countries, though the evidence base on the latter is very limited.

The paper starts by describing the evidence included in the repository on the fiscal impact of immigration (chapter 2) before outlining an analytical framework within which to understand the findings (chapter 3). Chapter 4 analyses the key factors that influence the impact of immigration. Chapter 5 considers the limited evidence for low- and middle-income countries and reflects more broadly on potential differences between this group and high-income countries. To conclude, implications for policy-makers and areas for future research are identified in chapter 6.

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1 This broad group of migrants includes all types of migrants, including refugees. As argued by Carling (2017), differentiating between migrants and refugees is counter-productive because it could undermine protection for other migrants besides refugees. Further, refugees and migrants often face similar challenges and share similarities in their decision-making processes. However, most studies included in the repository focus on labour migrants only. ‘Immigrants’ and ‘immigration’ are used to indicate in-migration only (not out-migration).

2 Whilst it is accepted that *emigration* of citizens also has an impact on fiscal balances, the focus of this literature review is upon the fiscal impact of immigration only (for a discussion of the fiscal impact of emigration see Vargas-Silva, 2015).

# 2 Describing the evidence

This review of the evidence on the fiscal impact of immigration was compiled via a desk-based literature review. Relevant studies were retrieved via Google Scholar and other online database searches and snowballing techniques. Criteria for inclusion in the repository included global studies based on primary quantitative data analysis, analysing the fiscal impact of immigration over the past 20 years (from 2000 onwards), and in English. It should be noted that the evidence included focuses only on the effects of *immigration*; for the effects of emigration see Vargas-Silva (2015). Further, the repository focused explicitly on the impact of immigration and excluded studies on fiscal incidence more broadly. In total, 71 studies fulfilling the criteria were retrieved (these are listed in Annex 1).

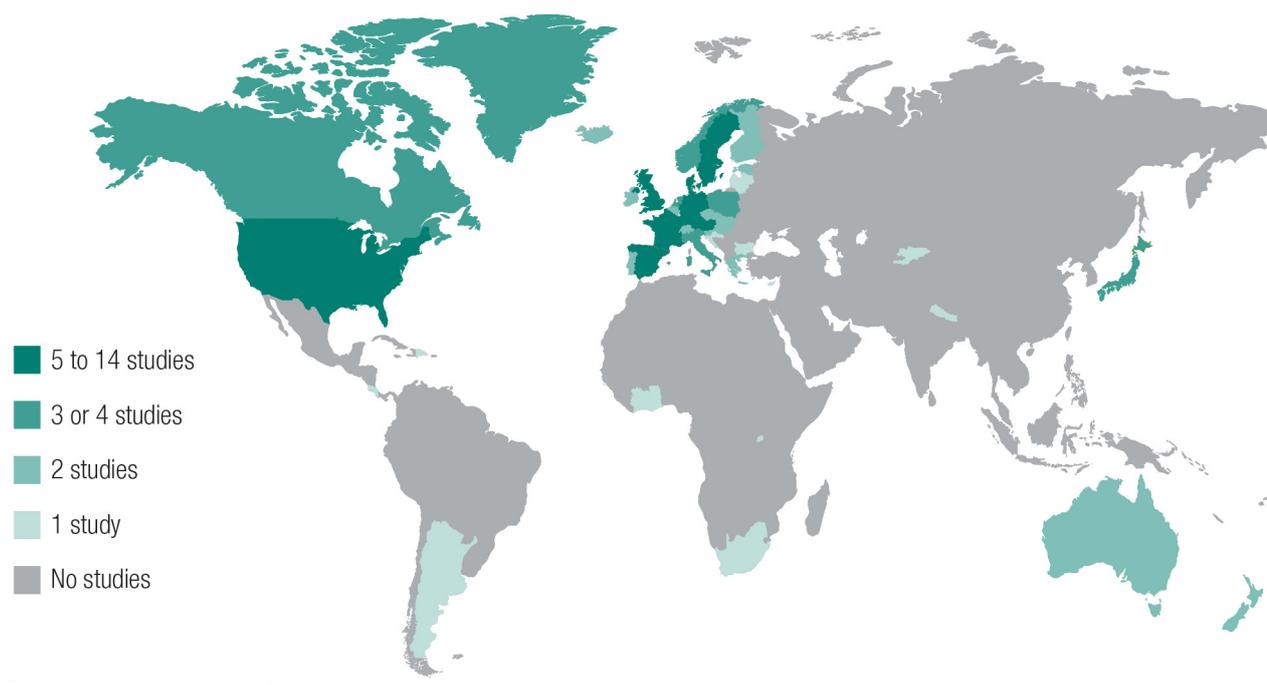
This chapter describes the scope and nature of the evidence for the fiscal impact of immigration in terms of geographic focus, type of immigration studied and methodological approach.

## 2.1 Geographical focus

Figure 1 shows the geographic coverage of the review, clearly highlighting that certain countries, predominantly in North America and Europe, make up the bulk of the empirical literature. The repository includes ten studies from the US, nine from the UK and eight from Sweden (not including comparative studies).

Little is known about the fiscal impact of immigration outside of high-income countries, with only one recent cross-country comparative

**Figure 1** Geographic coverage in the repository



Source: Gemma Hennessey

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study of nine low- or middle-income countries (OECD and ILO, 2018). Excluding the OECD and ILO study, there were no studies (found in English) for South America, Africa or Asia (apart from Japan), perhaps remarkable given the high levels of immigration in these areas. Part of the reason for the lack of studies could be limitations in data availability, or indeed the focus on English-language studies only in this review. Low- and middle-income countries thus represent a striking gap in the literature, and findings from high-income countries are unlikely to extrapolate to low- and middle-income contexts (Boehme and Kups, 2017).

The large number of studies in the US and Europe could be linked to greater demand fuelled by public debates around migration, especially European Union (EU) or non-Western migration in Europe and undocumented migration in the US.

Of the 71 studies included in the repository, 61 estimate the fiscal impact of immigration at the national level in one country, six are comparative cross-country studies and four look at the impact on a group of countries as a whole, namely Europe (Kancs and Lecca, 2018), Western Europe (d’Albis et al., 2018a), 19 OECD countries (d’Albis et al., 2018b) and groups of EU countries (Oesterman et al., 2019) (see Annex 1 for details).

## 2.2 Type of immigration covered

Few empirical studies distinguish between different types of immigration. Only one study, in Australia, breaks down fiscal impact by category of visa entry, drawing distinctions between the fiscal impact of labour migrants, family, students, and refugees and asylum-seekers (Access Economics, 2008). Indeed, there is a lack of national data disaggregated by migration status or category of entry. Instead, studies employ country of origin as a proxy for migrant categories, for instance assuming that EU migrants in Denmark are labour migrants, but migrants from Afghanistan, Iraq and Vietnam are refugees or asylum-seekers (Gerdes et al., 2011).

However, this distinction may not always be accurate as non-Western migrants might relocate for a variety of reasons (ibid.).

Nine studies focus on refugees and asylum-seekers, but only one estimates the future fiscal impact of flows of asylum-seekers in Western Europe (see the box in section 4.1), while two US studies estimate the fiscal impact of *irregular* or undocumented immigration (Camarota, 2004; Rector and Richwine, 2013).<sup>3</sup>

Many European studies differentiate between regions of origin, often defined as ‘Western’ – that is high-income countries – and ‘non-Western’ – that is low- or middle-income countries:

- Four studies compare ‘Western’ and ‘non-Western’ immigration.
- Three studies focus entirely on ‘non-Western’ immigration.
- Six studies compare the fiscal impact of EU immigration and non-EU immigration.
- One study compares immigration from OECD and non-OECD countries.
- Six studies focus on EU immigration only, and one on immigrants from the OECD only.

## 2.3 Methodological approaches

Empirical studies follow a range of methodological approaches which fall into two broad categories: static and dynamic (see Figure 2).<sup>4</sup> Static approaches – used in more than half of studies – calculate the *actual* fiscal contributions of immigrants for a given year. They use a cost–benefit analysis of migrants’ fiscal impact, summing taxes paid against benefits received to estimate the net fiscal contribution, often for a specific year as a percentage of gross domestic product (GDP).

Dynamic approaches (used in around half of the repository) are forward-looking, and estimate migrants’ future long-term net fiscal impacts. Among the dynamic studies three main approaches are represented in the literature:

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3 Both studies on irregular migration are from think tanks with anti-immigration leanings.

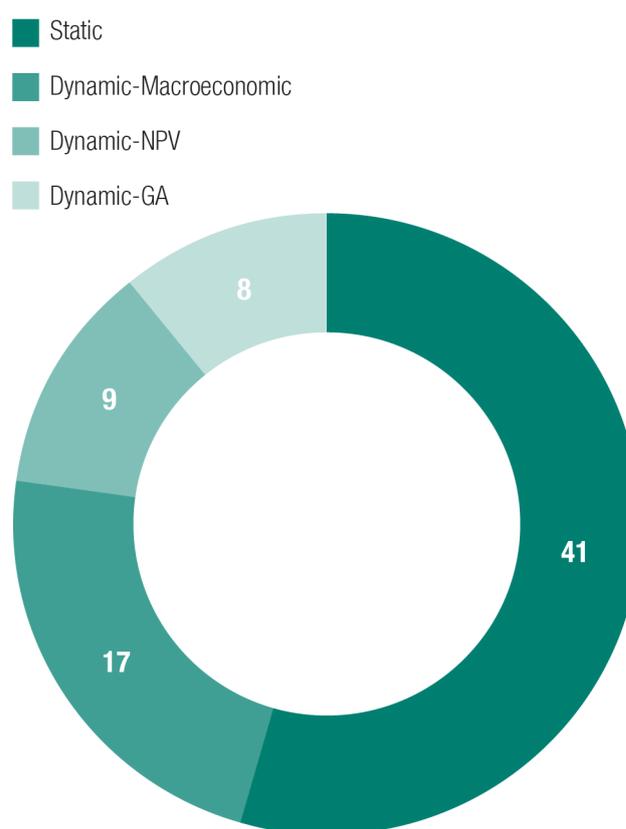
4 For an in-depth review of methodologies used in the literature on the fiscal impact of immigration, see Preston (2014), Vargas-Silva (2015) and Edo et al. (2018).

1. **Net Present Value (NPV)** models estimate the net fiscal impact of migrants (and usually their descendants), often over their lifetime, using an imputed discount rate, so that the impact varies depending on the discount rate used.
2. **Generational Accounting (GA)** models extend the NPV approach, additionally considering the host country's intertemporal budget constraint, to measure how the fiscal burden for future generations is modified by new immigration flows (Auerbach and Oreopoulos, 2000). These models rely on assumptions about future economic growth and the fiscal stance and borrowing by governments.
3. **Macroeconomic** models<sup>5</sup> deal more broadly with the economy-wide impacts of immigration, going further than NPV and GA models to consider indirect fiscal effects from changes in macroeconomic variables such as wages, employment, consumption and savings. These studies typically estimate the net fiscal impact of simulated immigration flows or 'shocks' over longer periods.

The outcomes of static studies are relatively precise as they calculate the actual net fiscal impact of immigration for a chosen year, but they are of course highly dependent on which year is selected for analysis, and do not take into account migrants' contributions at different stages of the life cycle.<sup>6</sup> Dynamic studies, on the other hand, offer a forward-looking perspective including all stages of a migrant's life, but doing so requires relying on (often hotly debated) assumptions about the future.<sup>7</sup>

The method employed has important consequences for findings. Even studies that follow the same methodological approach, with the same data, can produce widely different outcomes for the fiscal impact of immigration. In the UK, three static studies calculating the fiscal impact of immigration with the same data

**Figure 2 Methodological approaches in the repository**



Note: Some studies use both dynamic and static approaches  
Source: Gemma Hennessey

between 2001 and 2011 came to vastly different fiscal outcomes ranging from very positive to slightly negative to very negative (see Annex 1) (Dustmann and Frattini, 2014; Rowthorn, 2014; MigrationWatch, 2014). How can this be? The different outcomes are due to the underlying assumptions in each study. The main assumptions to be considered include:

- **Attributing the cost of public goods.** Studies could either attribute the average unit cost of public goods to migrants, as the population as a whole or attribute only the marginal (additional) unit cost, assuming in other words that fixed costs such as costs

5 The majority of macroeconomic models included in the review are Computable General Equilibrium (GE) models.

6 Several more recent static studies have taken a longer-term perspective by calculating the fiscal impact of immigration over several years, e.g. in the UK (Dustmann and Frattini, 2014), Denmark (Martinsen and Rotger, 2017) and France (Chojnicki et al., 2018).

7 Several recent studies present both static and dynamic analyses (e.g. Blau and Mackie, 2017; Hansen et al., 2017; Oxford Economics, 2018).

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of building and equipment (for schools for example) are incurred with or without migration, and so not part of migrants' fiscal impact. Because average costs are higher than marginal costs, the fiscal impact of immigration in Argentina, Costa Rica, Côte d'Ivoire and Ghana was found to be negative based on average costs, but positive based on marginal costs (OECD and ILO, 2018).<sup>8</sup>

- **Attributing the costs of migrants' children.** Given the high costs of public education, whether children born to migrants in host countries are treated as immigrants or natives can affect whether net fiscal impact is positive or negative (Rowthorn, 2008). Studies also differ in how they attribute the cost of education for children in households headed by mixed immigrant and native parents (e.g. Sriskandarajah et al., 2005; Liebig and Mo, 2013).
- **Modelling future trends in dynamic models.** There are many ways to model future economic trends such as immigration flows, life expectancy, return migration rates,

fertility rates, economic growth, labour market participation rates and immigration policy changes. Modelling future trends also relies on what data is available. For instance, a dynamic approach was not possible in the OECD and ILO (2018) study of low- and middle-income countries, due to the lack of available data.

The choice of assumptions is sometimes political and 'highly questionable' (Vargas-Silva, 2015). Policy-oriented groups with set migration agendas in the UK and US have tailored positive or negative findings to substantiate their fiscal arguments for or against immigration (ibid.). Notably, studies in the repository from US think tanks – the Heritage Foundation (Rector et al., 2007; Rector and Richwine, 2013) and the Centre for Immigration Studies (Camarota, 2004) – and UK Migration Watch (2006; 2014; 2016) find that migrants are large net fiscal burdens, but these findings are contentious and, while they are not excluded here, they should be treated with caution (Vargas-Silva, 2015).

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8 It is common for studies to calculate fiscal impact based on both public good assumptions.

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# 3 What do we know about the fiscal impact of immigration?

Overall, the empirical evidence is mixed and does not offer a definitive answer as to whether the net fiscal impact of immigration is positive or negative. As will be explored in the next chapter, whether migrants are net contributors or net burdens to public finances depends in part on their characteristics, but also to a large extent depends on the particular host country context and policy environment. Either way, in general, the overall net fiscal impact of immigration relative to government budgets is found to be small, typically within +/- 1% of GDP.

## 3.1 Main findings by region and country

There are clear geographical differences in whether the fiscal impact of immigration is found to be positive or negative.<sup>9</sup> Looking firstly to Europe, studies of Sweden and Denmark tend to find the net fiscal impact of immigration to be negative, and positive only for Europeans or immigrants from Western countries. Similarly, non-Western immigration is found to be negative for the fiscal balance in the Netherlands, while (small and) positive only for immigrants from OECD countries in Norway (Furlanetto and Robstad, 2017). The evidence from the UK is mixed, though one recent study suggests that immigrants are long-term net fiscal contributors, especially migrants from the EU (Oxford Economics, 2018). Immigration is largely found to be beneficial to public finances in Italy and Germany, in Spain even for low-skilled migrants

(Izquierdo et al., 2010) and in France except during economic recessions (Chojnicki et al., 2018). On the whole, EU immigration is positive (Nyman and Ahlskog, 2018; Oesterman et al., 2019).

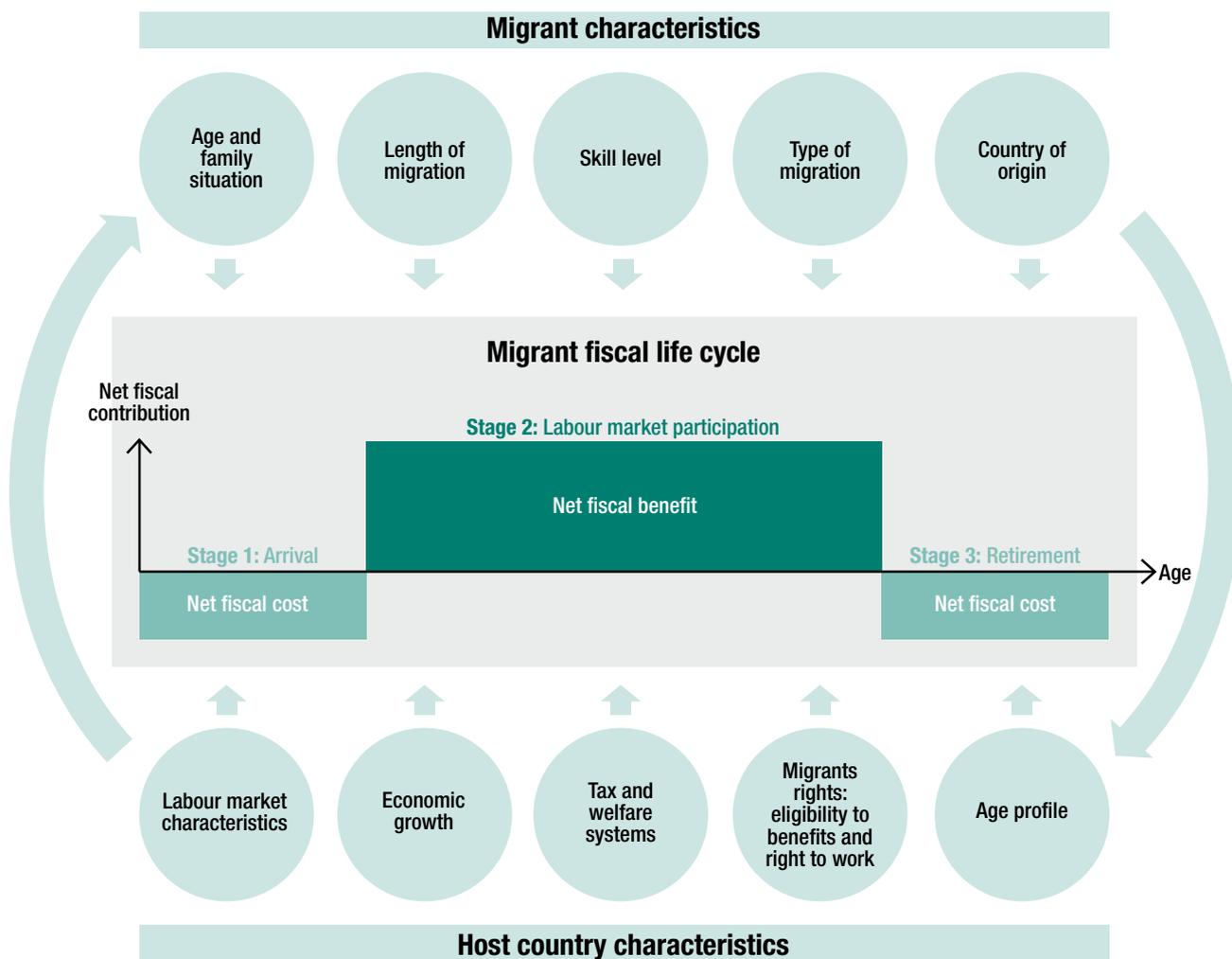
In Oceania, a handful of studies suggest that the fiscal impact of immigration is on the whole positive in Australia (Access Economics, 2008) and New Zealand (Slack et al., 2007; Nana et al., 2009). In North America, the evidence is more mixed. Long-term estimates of the fiscal impact of immigration find that, in general, immigrants are net fiscal contributors in the US (Chojnicki et al., 2011; Blau and Mackie, 2017) and increased immigration is fiscally beneficial in Canada (Dungan et al., 2012). In the US, low-skilled migrants represent a net fiscal cost, although less of a fiscal cost than the low-skilled native population (Blau and Mackie et al., 2017). Migrants represent a fiscal burden to state and local levels of government (Reuben and Gault, 2017).

Although little is known about the fiscal impact of immigration elsewhere in the world, one OECD/ILO (2018) study finds that immigration in four African (Cote d'Ivoire, Ghana, Rwanda and South Africa) and three Latin American countries (Argentina, Costa Rica and Dominican Republic) has small but mostly positive overall fiscal consequences. In two Asian countries (Kyrgyzstan and Nepal) the overall net fiscal impact of immigration is small and negative (*ibid.*). In Japan, the long-term fiscal impact of immigration is positive but minimal (Fehr et al., 2004; Shimasawa and Oguro, 2010; Kitao et al., 2016).

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<sup>9</sup> Annex 1 summarises the findings for each of the 71 studies, by type of immigration, country and study type.

**Figure 3 Factors influencing the fiscal impact of immigration**



Source: adapted from Kaczmarczyk (2015)

### 3.2 An analytical model highlighting the factors influencing fiscal impact

The fiscal impact of immigration is dependent on several factors. Figure 3 summarises the factors emerging in the literature that influence the fiscal impact of immigration, namely migrant characteristics, host country characteristics, and migrants’ position in the fiscal life cycle. There are three broad phases in a migrant’s fiscal life cycle:

1. **Arrival:** Migrants who arrive in a country at working age and are not immediately in work may represent a net fiscal cost as they establish themselves and their families and are absorbed into the labour market. Not yet participating in the labour market, migrants in this phase are not contributing any revenue but may consume public services such as healthcare or unemployment benefits. This stage also includes migrant children who do not yet work and pay taxes but incur costs, for instance for education.
2. **Labour market participation:** Working-age individuals in employment are typically a net fiscal benefit as they contribute more in taxes than they draw in benefits, with a lower demand for social services. Depending on skill level and labour market dynamics, this may not always be the case.
3. **Retirement:** Typically, retirees represent a net fiscal cost. In European countries with strong welfare states, public expenditure on pensions and health tends to be high; in countries with weaker welfare states this is less of a concern.

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If migrants return to their countries of origin upon retirement, this may limit the fiscal costs to host countries.

Two sets of factors – *migrant characteristics* and *host country characteristics* – determine the net fiscal impact of immigration alongside a migrant’s stage in the fiscal life cycle. For example, the absorptive capacity of labour

markets and migrants’ eligibility to work determine the extent to which migrants are able to find work, and the design of tax systems determines the extent to which they effectively extract taxes from this employment. The next chapter explores the empirical evidence on these two sets of factors for high-income countries, before reflecting on the scant evidence for low- and middle-income countries in chapter 5.

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# 4 The fiscal impact of immigration: evidence from high-income countries

## 4.1 Migrant characteristics

### 4.1.1 Age and family situation

Migrants are often much younger than native populations, meaning that a higher proportion is of working age and contributing taxes, particularly in host countries with ageing populations. This is the case in France, for example, where the younger migrant population contributes more to the fiscal balance than the older French national population (Chojnicki and Ragot, 2016). OECD countries with younger immigrant populations enjoy more positive fiscal impacts than those with older immigrant populations (Liebig and Mo, 2013).

Age at arrival also matters, with younger adults spending longer in phase two of the life cycle – labour market participation – as net fiscal contributors. Migrants who arrive in a host country at working age represent a significant saving to a host country's fiscal balance in comparison to the native population, since the high costs of their education are borne by another country (Oxford Economics, 2018). Migrants who arrive as newborns are more costly (Roodenberg et al., 2003). Dustmann and Frattini (2014) calculate that the UK government made a human capital saving of £14 billion between 1995 and 2011 from migrant workers being educated abroad.

A migrant's family situation, for instance whether they have children on arrival or go on to have children in the host country, influences their net fiscal contributions largely due to the high costs of education (Roodenberg et al., 2003). Young, working age migrants with no children are thought to be most beneficial for the fiscal balance (Storesletten, 2000). Indeed, studies that exclude dependants from calculations of the net fiscal position of migrants are more positive (Rowthorn, 2008). Taking a dynamic perspective over an entire lifetime, once the children of migrants enter the labour force this has a positive impact on the fiscal balance (Lee and Miller, 2000).

### 4.1.2 Length of time in-country

Several studies show that the longer migrants have been in a host country, the larger their net fiscal contributions (Sinn et al., 2001; Gustaffson and Osterberg, 2001; Slack et al., 2007). Migrants who have recently arrived may spend time in phase one of the fiscal life cycle as they attempt to enter the labour market, and over time increase their net fiscal contributions as they gain employment. Indeed, many studies show that, over a long-term trajectory, the initial negative fiscal impacts of immigration become more positive over time.

This is particularly the case for refugees and asylum-seekers, who initially represent net

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fiscal burdens, with high social costs and low employment rates,<sup>10</sup> but become net contributors after 15 years in Australia (Access Economics, 2008), eight years in the US (Evan and Fitzgerald, 2017) and 16 years for migrants from the former Yugoslavia, Ethiopians, Eritreans and Iranians in Sweden (Ruist, 2019) (see Box 1).

Many migrants are temporary and return to their country of origin before reaching retirement – phase three of the fiscal life cycle – where they become a net fiscal cost. Even when migrants take their pensions with them on return to their countries of origin for retirement, the host country still makes a significant saving in high public expenditure associated with the elderly, such as healthcare costs (Oxford Economics, 2018).

### 4.1.3 Skill level

A large number of studies highlight the skill level of migrants as an important factor in explaining fiscal impact. Similar to the fiscal impact of native workers, highly skilled migrants typically contribute more to the fiscal balance than low-skilled counterparts (Storesletten, 2000; Fehr et al., 2004; Chojnicki 2013; Blau and Mackie, 2017).

Migrants in high-skilled jobs earn more and consequently pay more in taxes, meaning they make larger fiscal contributions (Auerbach and Oreopoulos, 2000). However, it should be noted that highly skilled migrants are often underemployed, sometimes due to a lack of recognition of professional certificates in host countries (Mallett, 2018), and are less likely to be employed than their native counterparts (Leibig and Mo, 2013). Conversely, low- and semi-skilled migrants are over-represented in lower-quality and lower-paid work (Mallett, 2018), again affecting their potential tax contribution.

Like low-skilled native workers, low-skilled migrants are often net fiscal burdens. In the US, migrants without a high school diploma represent a net fiscal cost, but are less of a fiscal burden than low-skilled natives (Blau and Mackie, 2017). Furthermore, low-skilled individuals may retire earlier, thus spending less

time in stage two of the fiscal life cycle as net contributors (Hansen et al., 2017).

In contrast, two studies suggest that in the long term, low-skilled migration is just as beneficial for the fiscal balance as higher-skilled migration (Izquierdo et al., 2010; Chojnicki and Ragot, 2016). One study in France suggests that, projected over 100 years, selective migration policies for high-skilled migrants had no fiscal advantage compared to non-selective policies (Chojnicki and Ragot, 2016).

### 4.1.4 Types of migration

Labour migrants have more positive fiscal impacts than other types, such as family, students or refugees and asylum-seekers, who tend to have a negative net fiscal impact, at least initially. Indeed, Rowthorn (2008) makes the point that the large positive fiscal contribution of labour migrants is largely offset by the negative impact of other migrant groups, which may explain why the overall net fiscal impact of immigration is often found to be small.

The fiscal impact of immigration tends to be more positive when labour migrants make up the bulk of the migrant population (Hinte and Zimmerman, 2014). The one retrieved study that disaggregates the fiscal impact of immigration by visa categories finds that in Australia, labour migrants (arriving with a work visa) are large net fiscal contributors, while refugees and asylum-seekers remain net fiscal burdens for the first 15 years (Access Economics, 2008).<sup>11</sup> In a comparative study of OECD countries, in Italy, Greece, Spain and Portugal, where recent labour migrants make up a large proportion of the immigrant population, the fiscal impact of immigration is more positive than in countries where the immigrant population is made up of refugees and asylum-seekers (or older labour migrants) (Liebig and Mo, 2013).

In the wake of the so-called global refugee crisis, several studies have sought to estimate the fiscal impact of refugees in the EU and US, outlined in Box 1.

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10 In part due to the lack of right to work; see section 4.2.3

11 The model used only takes into account working age migrants.

## Box 1 Fiscal impact of refugees

Several recent studies have sought to quantify the fiscal impact of large-scale refugee movements. The fiscal costs of refugees compared to other migrant groups are higher, particularly due to the high initial costs of meeting immediate arrival needs, including welfare services, pressure on infrastructure and the costs of processing asylum applications (Holler and Schuster, 2018). In 2015–16, accommodating refugees cost EU member states between 0.1% and 0.6% of GDP (European Commission, 2016). In 2014, hosting 650,000 Syrian refugees cost Jordan 2.4% of GDP (Nasser and Symansky, 2014).

As well as high initial costs, refugees often create long-term fiscal costs due to slow integration. Refugees typically integrate into labour markets more slowly than other migrants, taking around 15 years to match labour migrants' and natives' employment rates (Vargas-Silva and Ruiz, 2018; Fasani et al., 2018). Refugees are sometimes excluded from labour markets altogether, tend to be less educated than labour migrants (Holler and Schuster, 2018) and may require more welfare assistance due to greater physical and mental health requirements (Samuels, 2018). Unlike with labour migration, host countries cannot select refugees or asylum-seekers with certain characteristics (Holler and Schuster, 2018).

Findings on the fiscal impact of refugee movements are summarised below:

- In Sweden, refugees are estimated to be a net fiscal burden (Ruist, 2015; Alden and Hammarstedt, 2016; Ruist, 2019), although one study suggests that refugees from certain countries – the Former Yugoslavia, Ethiopia, Eritrea and Iran – had a less negative impact than those from others – Somalia and Iraq (Ruist, 2019).
- In Austria, the long-term impact of refugees arriving between 2015 and 2019 is negative overall, eventually becoming positive as short-term costs fade out and refugees acquire skills and integrate into the labour market (Holler and Schuster, 2018).
- In Germany, refugees arriving in 2015 are estimated to be net fiscal burdens overall; after 11 years they switch to being net contributors (Bach et al., 2017). However, increased investment in integration programmes would reduce fiscal costs by €11 billion (ibid.).
- One study finds that, in the US, the initially negative net fiscal impact becomes positive after eight years (Evans and Fitzgerald, 2017), and after 15 years in Australia (Access Economics, 2008). However, both studies only include working-age refugees, excluding those in stage one (childhood) and stage three (retirement) of the fiscal life cycle.

In the EU, Kancs and Lecca (2018) found that the annual long-term GDP effect of refugee flows ranged between 0.2% and 1.4%, depending on integration policies (see section 4.2.1). Meanwhile, another study of Western Europe found that 'shocks' of asylum-seekers did not damage fiscal balances because increases in public spending were compensated for by an increase in tax revenues (d'Albis et al., 2018). While dynamic studies show that the fiscal impact of refugee flows does improve over time, the benefits are often not large enough to offset the high previous costs (Gal, 2018).

A few studies find that *irregular* migration in the US represents a large net fiscal burden (Camarota, 2004; Rector and Richwine, 2013), due to the fact that irregular migrants are typically low-skilled and in low-paid work, and so contribute little in income tax. Both studies are from anti-immigrant-leaning think tanks and use a fiscal argument to advocate – controversially

– against amnesty for irregular migrants in the US, arguing that regularising them would lead to large increases in public spending as they become eligible for social programmes.

### 4.1.5 Country of origin

Slack et al. (2007) notes that migrants' fiscal impact differs widely between nationalities, since

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migrants from different regions have diverse personal, family and social characteristics.

Many European studies differentiate between the fiscal impacts of migration of different countries of origin, often between ‘Western’ migrants from high-income countries, who are mostly net fiscal contributors, and ‘non-Western’ migrants from low- and middle-income countries, who are typically net fiscal burdens (Wadensjo, 2000; Wadensjo and Orrje, 2002; Wadensjo, 2007; Gerdes, 2007; Gerdes et al., 2011; Hansen et al., 2017). For instance, one Danish study concluded that the lifetime net fiscal impact of Western immigration was positive, but negative for non-Western immigration, as well as – interestingly – for the *native* population (Hansen et al., 2017). Migrants from non-Western countries are typically more likely to be unemployed and less educated, and often include refugees, while migrants from Western countries may find it easier to integrate into the labour market.

EU migration is an interesting case due to free movement – selective migration policies from EU countries is not possible. EU immigrants typically have a more favourable fiscal impact than non-EU immigrants (Dustmann and Frattini, 2014; Martinsen and Rotger, 2017; Oxford Economics, 2018; Oesterman et al., 2019). This may be due in part to the fact that a greater share of EU migrants are labour migrants, as opposed to refugees and asylum-seekers (Oesterman et al., 2019). One recent comparative study found that the net fiscal impact of EU migration is generally positive but modest – falling mostly between plus or minus 0.4% of GDP (Nyman and Ahlskog, 2018). Further, EU migrants have a more positive impact on the fiscal balance than their native-born counterparts in many EU countries (Oesterman et al., 2019).

## 4.2 Host country characteristics

### 4.2.1 Labour market characteristics

Labour market participation is ‘the single most important determinant of migrants’ net fiscal contribution’ (Liebig and Mo, 2013: 129). In

Luxembourg, where migrants are net fiscal contributors, employment rates among migrants are higher than for the native-born population (*ibid.*). Indeed, the fiscal impact of EU A8 migrants<sup>12</sup> who arrived in the UK between 2004 and 2008 was more positive than that of the native-born population, despite these migrants being largely engaged in low-skilled, low-paid work, due to extremely high employment rates (Dustmann et al., 2010).

Entry into phase two of the fiscal life cycle (labour market participation) depends on how absorptive labour markets are for migrants. For instance, in the US, the labour market is more absorptive than in Sweden, with migrants having a positive fiscal impact in the former, and a negative impact in the latter (Storesletten, 2003). In Denmark, Schou (2006) projects the fiscal impact of new immigration of a 0.1% increase in population per year using two scenarios: first, a scenario where new migrants have the same characteristics as the current migrant population; and second, where migrants are immediately integrated into the labour market. The first scenario results in a negative projected net fiscal impact, while the second has a positive net fiscal impact. A similar study in Sweden comes to a similar conclusion (Ekberg, 2011).

One recent study estimated the fiscal impact of refugee flows in Europe under different integration policies (Kancs and Lecca, 2018). The authors found that the short-term costs of providing integration programmes for refugees are outweighed by the long-term fiscal benefits. Indeed, ‘the long-run cost of non-integration is likely to be considerably higher than the short-run investment costs of refugee integration’ (Kancs and Lecca, 2018: 2627). A similar study in Germany found that increased investment in integration programming for the 890,000 refugees who arrived in 2015 would lead to an €11 billion saving for public finances over 15 years (Bach et al., 2017).

### 4.2.2 Economic growth

Estimates of the fiscal impact of immigration depends on a host country’s economic growth.

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12 The EU A8 countries are Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.

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In countries with large budget deficits, both native-born and migrant populations tend to be a fiscal liability (Liebig and Mo, 2013; Nyman and Ahlskog, 2018; Oesterman et al., 2019).<sup>13</sup> Indeed, the fiscal impact of immigration in France between 1979 and 2011 was positive except for the years 1995 and 2011, which followed recessions (Chojnicki et al., 2018). One study (Oesterman et al., 2019) found a drop in the net fiscal contributions of EU migrants following the 2009 financial crisis.

#### 4.2.3 Tax and welfare systems

The fiscal impact of immigration is strongly dependent on the characteristics of a host country's tax and welfare systems. Scandinavian states such as Denmark and Sweden have both high tax rates and high social expenditures. In combination with low labour market participation among migrants in both countries, in general migrants represent net fiscal burdens (Ekberg, 2011; Hansen et al., 2017). In countries with less generous welfare systems, migrants (as well as the native-born population) cost less to public finances, for instance in the US.

One recent study tested the hypothesis that differences in the fiscal effects of EU immigration in different countries were due to differences in tax and welfare systems by grouping countries by system type (Oesterman et al., 2019). There were differences in fiscal impact between tax and welfare systems, however these were smaller than expected – as the higher public expenditure under universal welfare states was compensated for by the tax revenues contributed by EU migrants (*ibid.*).

Depending on the administrative structure in host countries, the revenues and costs of immigration may be borne disproportionately by certain levels of government. A handful of US studies consider the impact of immigration on public finances at federal versus state and local levels separately. The fiscal impact of immigration is found to be negative at state and local level, but positive at federal level (Lee and Miller, 2000; Blau and Mackie, 2017; Reuben and Gault, 2017).

#### 4.2.4 Migrant rights

The fiscal impact of immigration is heavily dependent on migrants' rights in a host country, both in terms of access to public services and the right to work (Vargas-Silva, 2015).

The right to access public services and benefits varies widely across countries – immigration is more costly where welfare systems are more generous and have fewer restrictions to social services and benefits, and less costly in countries that restrict migrants' access. Whether migrants are eligible for social benefits and services may be dependent on the length of time they have been in a country. Irregular migrants, including asylum-seekers, may have limited rights and are often denied access to services. Even with *de jure* access, take-up rates may be lower among migrants than for the native population (Hennessey and Hagen-Zanker, 2018). Restrictions on the right to work impede migrants' ability to pay taxes, preventing migrants from entering stage two of the fiscal life cycle. For example, employment bans for asylum-seekers in Germany are estimated to have cost German taxpayers €40 million a year in welfare expenditures and forgone tax revenues (Marbach et al., 2017).

#### 4.2.5 Age profile

The age profile of the host population influences the extent of immigration's impact on the fiscal balance. Many high-income countries have ageing populations; for instance, it is estimated that, in 2060, one in three Germans will be over 65 (Ferguson, 2019). A growing elderly population significantly increases a government's social spending on pensions and health, while at the same time a shrinking working-age population reduces revenues and other contributions collected, representing a threat to fiscal sustainability (Clements et al., 2015). There may be a lot to gain from an increase in young, income-earning and tax-paying migrants, improving the ratio of the economically active to the economically inactive. Reflecting on findings from the US, Germany and Spain, Collado et al. (2004) notes that the fiscal impact of

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13 Studies that follow a static methodological approach that calculates the net fiscal contributions of migrants for one year should be interpreted with caution, as fiscal effects differ from year to year.

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immigration in the US is relatively small as the ageing population problem is less pronounced.

Several studies have suggested that increased immigration could be a solution to fiscal problems in countries with ageing populations (Storesletten, 2000; d'Albis et al., 2018b). The fiscal consequences of immigration are found to be positive for OECD countries by increasing the working age proportion of the population and reducing per capita public spending on the elderly (d'Albis et al., 2018b). Storesletten (2000) suggests that an additional 1.6 million 40–44-year-old highly skilled migrants a year could solve the fiscal problems associated with the ageing baby boom

generation in the US. Immigration is also thought to reduce the fiscal burden stemming from ageing populations in France (Chojnicki and Ragot, 2016), Spain (Collado et al., 2016), Germany (Bonin et al., 2000) and Japan (Shimasawa and Oguro, 2010).<sup>14</sup>

However, increased immigration is unlikely to be sufficient in reversing or preventing the fiscal burden from ageing populations. One study found that, while doubling highly skilled immigration flows was positive for the fiscal balance, it made ‘essentially no difference’, as the scale of migration needed to make a real impact on fiscal stresses is unfeasible (Fehr et al., 2004: 297).

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14 One study assesses the fiscal impact of immigration in a country of net *emigration*, namely Ukrainian migrants in Poland (Kaczmarczyk, 2015). In this context, with a shrinking working-age population due to emigration, migrants have a better fiscal position than the Polish population (*ibid.*).

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# 5 Reflections on low- and middle-income countries

The fiscal impact of immigration in low- and middle-income countries is likely to be different than in high-income countries, given the different host country context, for instance lower rates of tax collection and smaller welfare systems (Vargas-Silva, 2015). However, the evidence base outside of high-income countries is scant. Prior to the OECD and ILO reports on the impact of immigration on ten developing countries' economies in 2017–18, there were no studies calculating the fiscal impact of immigration in low- or middle-income countries (Boehme and Kups, 2017).

## 5.1 The evidence base

The OECD/ILO study followed a static methodological approach to calculate the net fiscal impact of *labour* immigration for a specific year, as a percentage of overall GDP and GDP per capita (see Table 1). The study was restricted by data limitations. Actual tax record data was unavailable, meaning that calculations were based instead on government budget data and national household surveys (and the authors note that it was not possible to make an estimate for Thailand due to insufficient available data).

The overall net fiscal impact of immigration differed across the nine countries, but in general was estimated to be small, between plus or minus 1% of GDP (echoing findings

in OECD countries), and largely positive. In most countries, immigrants are thought to be net fiscal contributors, or in other words have a positive net fiscal impact on public finances. In only two of the nine countries, Kyrgyzstan (2013) and Nepal (2011), is the fiscal impact of immigration negative. While the overall net fiscal impact is minimal, the per capita fiscal impact of immigration is in some countries quite high, varying from -20% to 10%.<sup>15</sup> Moreover, in all countries except Argentina and Kyrgyzstan, immigrants' per capita fiscal contributions are *higher* than those of the native-born population. In South Africa and Rwanda, the per capita net fiscal contribution of migrants is more than five percentage points higher than the native-born population.

That the native-born population contributes more to the fiscal balance than immigrants in Argentina and Kyrgyzstan is mostly explained by the age profile of the immigrant population – in both countries, immigrants are older than the native-born population. As a result, compared to the native-born population, immigrants are more likely to receive pension payments and medical services, and less likely to contribute revenues as they earn and consume less. Kyrgyzstan has a relatively generous pension programme, and with nearly a quarter of migrants over 65 per capita immigrants represented a large net fiscal burden (19%).

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15 The difference in per capita to overall net fiscal impact can be explained by the size of immigrant populations in each of the countries – in the Dominican Republic, where migrants are thought to make a considerable positive per capita net fiscal impact of 8%, as the immigrant population is relatively small (3.9%), the overall net fiscal benefit is minimal: just 0.2%.

**Table 1 The net fiscal impact of immigration in nine low- and middle-income countries**

Country	Income level	Year	Overall net fiscal impact (% GDP)	Per capita net fiscal impact of immigrants (% per capita GDP)
Argentina	Upper middle	2013	0.11%	2.5%
Costa Rica	Upper middle	2013	0.27%	3.0%
Côte d'Ivoire	Lower middle	2008	0.67%	9.4%
Dominican Republic	Upper middle	2007	0.22%	8.2%
Ghana	Lower middle	2013	0.04%	4.2%
Kyrgyzstan	Lower middle	2013	-0.55%	-19.3%
Nepal	Low	2011	-0.12%	-2.9%
Rwanda	Low	2013	0.74%	2.5%
South Africa	Upper middle	2011	0.85%	2.5%

Note: Based on a marginal cost (see section 2.4).

Source: (OECD and ILO, 2018)

In Nepal, the overall net fiscal impact of immigration was also negative. The immigrant population in Nepal is 69% female and has the lowest employment rate of the nine countries – just 42%. However, the dependency ratio for the immigrant population is lower than for the native-born, with a higher proportion of working age.

The large net fiscal contributions of immigrants in South Africa and Rwanda is largely explained by favourable age profiles and high employment rates, higher than the native-born population. In Rwanda immigrants contribute more to the fiscal balance than the native-born population, contributing nearly three times more in taxes and contributions, and receiving less in expenditures. This is due to migrants being almost entirely of working age, and high concentrations working in non-vulnerable employment and high productivity sectors. In South Africa, migrants are easily absorbed into the labour market with a high employment rate of 79%, and immigrants are higher skilled than the native-born population.

## 5.2 Reflections on host country characteristics: low- and middle-income countries

That high employment rates, favourable age profiles and in part skill level contributes to positive net fiscal impacts of immigration in some low- and middle-income countries is

consistent with findings from the literature in high-income countries. While the evidence is limited, the following considers how host country characteristics in low- and middle-income countries may influence the fiscal impact of immigration, and how this may differ from high income countries.

### 5.2.1 Labour market characteristics

As in high-income countries, labour market participation is a key determining factor in migrants' fiscal impact: in Rwanda and South Africa, where migrants have high labour market participation rates, migrants are large net fiscal contributors (OECD and ILO, 2018).

In contrast to high income countries, low- and middle-income countries often have large informal sectors – in the OECD/ILO study, the nine economies were on average 45% informal in 2013, compared to 20% in OECD countries. Migrant workers tend to be over-represented in informal sectors (Mallett, 2018), and so the informality of employment is likely to affect immigrants' fiscal contributions more than the native-born population.

The informality of labour markets influence an individual's net fiscal contributions in two ways. On the one hand, depending on a country's regulatory framework, individuals in the informal sector may pay little or no income tax, and informal businesses no corporate tax (Bohme and Kups, 2017). Being unregistered or

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hidden from the authorities, informal enterprises are by their nature administratively difficult to tax (Long and Miller, 2018). Countries with large informal sectors tend to receive lower revenues from direct taxes (Besley and Persson, 2014). While informal workers still contribute consumption (indirect) taxes, wages in the informal sector are typically lower, limiting these indirect contributions (ibid.).

On the other hand, workers in the informal sector may be eligible for fewer benefits or social transfers, and thus cost public finances less. Those in informal employment are often excluded from the contributory elements of social security systems (OECD and ILO, 2018); this could particularly impact migrants' fiscal contributions given their over-representation in informal sectors.

### 5.2.2 Tax and welfare systems

Compared to high-income countries, in low- and middle-income countries there are often both low rates of tax collection and low social spending, influencing both the taxes paid and social benefits received by migrants (and the native-born population). Public revenues as a share of GDP tend to be lower in low- and middle-income countries than in high-income countries: 14% on average in low-income countries, 16% in lower-middle-income countries and 20% in upper-middle-income countries, compared to 24% in OECD countries (in 2010) (OECD and ILO, 2018). In many countries, the government's tax collecting capability is poor – a symptom and cause of under-development (Long and Miller, 2018). Indeed, levels of taxation tend to increase as a country transitions from a low- to a high-income economy, as a result of economic development and increases in tax collecting capacity (Besley and Persson, 2014).

Lower-income countries tend to rely more on indirect taxes (e.g. consumption taxes and international trade taxes) more heavily than direct taxes (e.g. income and corporate tax or social security contributions). In the OECD and ILO study, low- and lower- middle-income countries received between 57% and 78% of their total revenue from indirect taxes. Consumption taxes on goods and services make up the bulk of indirect tax revenues.

Consumption taxes are regressive and disproportionately affect poorer individuals (Lustig, 2018). Unlike in high-income countries, where more progressive taxes have an equalising effect, high consumption taxes on basic goods in low- and middle-income countries can *increase* poverty (ibid.).

As with the native-born population, low revenue raising capacity limits the fiscal contributions of migrants to public finances. Reforming tax policy and increasing tax collecting capabilities in low- and middle-income countries to increase revenues would bolster public finances and make the most of the contributions of the native-born and migrant population alike. For instance, including the informal sector could increase the fiscal contributions of migrants – such attempts have been made in Ghana to directly tax informal enterprises, although with mixed results (Bohme and Kups, 2017).

Low- and middle-income countries also tend to spend less than high-income countries: public expenditures as a percentage of GDP in 2010 were around 17% on average in low- and lower-middle-income countries, and 30% in OECD countries (OECD and ILO, 2018). In terms of social spending, low- and middle-income countries also spend less: a study of 29 low- and middle-income countries found that they allocated on average around 10% of GDP to social spending, compared to OECD countries, which on average allocate 19% (Lustig, 2018). Indeed, the upper-middle-income countries devoted higher shares of expenditure to social spending (namely social security, health and education) than the lower-income countries in the OECD and ILO study. There was wide variation in social spending across the nine countries, with Côte d'Ivoire allocating 20% of public expenditure to social spending and 1% on social security, compared to nearly 70% in Kyrgyzstan, with 40% on social security (OECD and ILO, 2018). Kyrgyzstan is however an outlier, and its relatively high social spending can be explained by its legacy as a former member of the Soviet Union, which had a universal pension scheme.

Higher-income countries tend to have more comprehensive social security systems, though here too there are exceptions, one of them

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being the US. Lower-income countries typically only provide extensive benefits to public sector workers and universal support is more limited (for instance child benefit tends to be targeted towards particular groups). Migrants, like the native-born population, thus contribute less but also receive less from tax and welfare systems in low- and middle-income countries than in high-income countries.

### 5.2.3 Migrant rights

In the OECD and ILO (2018) study, immigrants were equally or less likely to receive benefits or pensions than the native-born population, once personal characteristics were taken into account. This could in part be due to irregular immigration status or over-representation in informal employment (*ibid.*).

The rights of immigrants to receive social security benefits differed widely across the nine low- and middle-income countries in the OECD and ILO (2018) study. It is often the case that benefits, e.g. pensions, are limited to citizens only, and migrants with irregular status were excluded from the social security system across all nine countries. Even migrants with *de jure* access to public services including healthcare and education are often excluded in

practice (Hennessey and Hagen-Zanker, 2018). Depending on the regulatory environment, it may be the case that immigrants contribute the same in taxes or social security as natives, even though they are barred from receiving benefits.

### 5.2.4 Age profile

With fertility rates in low- and middle-income countries higher than in high income countries, and at the same time pension systems less developed, the debate in high-income countries as to whether immigration may be an antidote for the fiscal problems related to ageing populations is not yet of importance in low- and middle-income countries (Boehme and Kups, 2017). In contrast, in many lower income countries and in particular in Sub-Saharan Africa, the youth population is growing. In Rwanda, for instance, we see the opposite dynamic – the migrant population is on average *older* than the native-born population, with nine in ten migrants of working age, compared to four in ten of the native-born population under 15 years old (OECD and ILO, 2018). Due to the high proportion of the population not yet working, migrants also contribute towards increasing the proportion of economically active to economically inactive.

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# 6 Conclusions and implications for policy

## 6.1 Summary of the evidence

The evidence on the fiscal impact of immigration varies widely depending on the host country context, the types of immigration covered, and the methodological approach and choices followed. As a result, it is hard to generalise as to whether the impact of immigration is positive or negative for a country's public finances. The host country context has a strong influence on the fiscal impact of immigration, including how easily migrants can enter the labour market, how generous welfare systems are and whether immigrants have the right to work and access welfare services. Immigrants' characteristics also matter, including their age profile, skill level, length of time in a country, return rates and migration status.

In general, the evidence suggests that the overall net fiscal impact of immigration is minimal; this holds true in both high and low- and middle-income countries (although the evidence on the latter is limited). Far from yielding an additional strain on countries' public finances, migrants on the whole contribute as much or slightly more than they receive in benefits. Indeed, since migrants are usually of working age, it is often the case that they contribute more to the fiscal balance than their native counterparts.

## 6.2 Evidence gaps

Very little is known about the fiscal impact of immigration outside of high-income countries, and many of the world's largest migrant-receiving countries are not covered in the literature. It is likely that the fiscal consequences of immigration

in these contexts are very different to those in high-income countries, as discussed in chapter 5. Much more research is needed to understand how immigration in low- and middle-income countries can contribute to economic development. More research is also needed on the fiscal impact of immigration in low- and middle-income countries by migration status.

There is also a lack of data breaking down the fiscal consequences of immigration by *type* of immigration or visa entry category, beyond using the country of origin as a proxy for refugee status. In OECD countries, family migration is the most common reason for migration, more so than free movement in the EU or humanitarian, labour and student flows (OECD, 2017). In all but one study in the repository, these different types of migration are invisible. Better data with information on visa entry type is needed.

Wider data limitations restrict calculations of the fiscal impact of immigration more broadly, particularly in low- and middle-income countries. More and better data, such as actual tax records with information on country of birth, are required to accurately calculate the fiscal impact of immigration. Dynamic studies analyse the long-term fiscal consequences of immigration and so are particularly relevant to policy, but have only been conducted in a handful of countries, in part due to data limitations.

## 6.3 Implications for policy

Migrants make contributions to host country economies beyond just paying taxes, contributing towards economic growth with higher demand for goods and services, and higher consumption (Foresti and Hagen-Zanker, 2018). Migrants

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also make important contributions to innovation and development in host countries (Gelb and Krishnan, 2018).

Unlocking the fiscal benefits of migration is a matter of policy choice and coherence.

## **Adapt immigration policy to maximise fiscal benefits**

The evidence base does not support restrictions on immigration – indeed, restrictive immigration policies risk undermining the potential fiscal benefits of migration. In many cases, youthful migrant populations contribute more in revenues and consume less in public services than the native population. Although immigration alone cannot solve fiscal problems related to ageing populations in high-income countries, the younger age profile of migrants can in part alleviate the tax burden, boosting fiscal revenues by increasing the ratio of working age to inactive population. Since labour migrants – with regular status and in the formal sector – contribute the most to the fiscal balance, increasing legal pathways for labour migration is beneficial for public finances.

Selective immigration policies that favour high-skilled migration could be most beneficial, since high-skilled migrants in higher-paid jobs contribute more in income tax to the public purse. However, the specific needs of host countries' labour markets should be taken into account; for instance in ageing populations, younger low- to medium-skilled migrant workers may be essential to fill labour shortages, for example in the care sector. Increasing legal migration pathways for certain employment sectors could facilitate this, for instance through tools such as the Global Skills Partnerships. In low- and middle-income countries, selective immigration policies may be unlikely to attract a large number of highly skilled migrants, however creating an accommodating environment for migrants by simplifying visa and work permit applications could make a country more attractive for highly skilled workers (OECD and ILO, 2018).

Labour migrants contribute more to public finances than refugees or asylum-seekers, given that they usually have fewer welfare needs

(and hence cost less), are better educated and participate more in the labour market (and so pay more taxes). However, long-term studies suggest that, after high initial costs on arrival, refugees in high-income countries eventually become net contributors to public finances, after around a decade. While overall in fiscal terms refugees and asylum-seekers represent a net cost, they tend to account for a very small share of the population, so their impact on the fiscal balance tends to be minimal.

## **Maximise access to work**

Labour policies thus have a key role to play in harnessing the potential benefits of immigration for public finances. Above all else, participation in the labour market is the critical determinant in ensuring that the fiscal impact of immigration (and the native-born population) is positive – maximising contributions and minimising benefits received from public finances. In many cases there are large fiscal gains to be made in raising migrants' employment levels to that of the native-born population (Liebig and Mo, 2013). Indeed, evidence on the labour market effects of immigration suggests the impact of immigration on average wages and native-born employment are typically small or even positive (Edo et al., 2018).

Governments that exclude migrant groups from the labour market – as is often the case for asylum seekers – lose out on their potential fiscal contributions (Clemens et al., 2018). As a minimum, removing the barriers to work that certain migrants face could increase fiscal contributions. The evidence suggests that investing in the integration of immigrants pays off in fiscal terms. While initially labour market integration could be slow and costly (for instance due to language barriers or health issues), the evidence shows that even these migrant groups have positive impacts on a country's fiscal balance over time. Indeed, the long-term fiscal costs of the non-integration of migrants may be higher than the short-term costs of integration programming. This is especially the case in high-income countries with welfare systems that provide extensive unemployment and other benefits.

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Policies should also focus on increasing the *quality* of labour market integration. Immigrants often enjoy high employment rates but in low-quality employment, for instance concentrated in the informal sector or in vulnerable employment. Reforms should include policies to recognise qualifications gained in countries of origin and encouraging the growth of the formal sector. Lastly, investing in the employability of migrants (and natives) through vocational and language training would increase their contributions to the fiscal balance, improving the quality of employment, increasing wages and thus tax contributions.

### **Consider tax systems and welfare provision**

Key to the fiscal contributions of migrants and natives alike is the design of tax and welfare systems. Improving governments' tax collecting capability and designing more progressive fiscal policies increases public revenues and is more equitable for both migrants and natives. Extending tax collection to the informal sector, where immigrants are often concentrated, could widen the tax pool and increase the gains to be made from immigration. By extension, regularising the status of irregular migrants could also increase the net fiscal benefits of immigration.

While the evidence shows that, overall, immigration does not have a detrimental impact on welfare systems, its effects are not equally distributed in host countries. In areas where large increases in population may put extra pressure on public services, welfare systems should invest in these specific localities – immigrants' revenues can contribute to extending services, while at the same time increasing employment opportunities.

### **Use the economic evidence to inform a more balanced public narrative**

There is no strong evidence that migrants are welfare drains or detrimental to public finances. Rather, migrants often have no impact or make a small *contribution* to the fiscal balance. In other words, migrants put in as much (or more) than they take out, often making a larger contribution to the fiscal balance than their native counterparts.

With concerns about the fiscal consequences of immigration at the heart of negative public narratives, efforts should be made to shift public attitudes by targeting specific groups with reliable information about the economic realities of migration (Dempster and Hargrave, 2017). With key labour shortages in many economies, the contributions of migrants to the fiscal balance and host countries more broadly should be emphasised.

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## References

- Access Economics (2008) *Migrants fiscal impact model: 2008*. Update. Canberra: Department of Immigration and Citizenship
- Alden, L. and Hammarstedt, M. (2016) *Refugee immigration and public sector finances: longitudinal evidence from Sweden*. Växjö: Centre for Labour Market and Discrimination Studies, Linnaeus University
- Auerbach, A.J. and Oreopoulos, P. (2000) 'The fiscal effect of U.S. immigration: a generational-accounting perspective' *Tax Policy and the Economy* 14: 123–156
- Bach, S., Herbert Brucker, P.H., Romiti, A., van Deuverden, K. and Weber, E. (2017) 'Refugee integration: a worthwhile investment' *DIW Economic Bulletin* 3: 33–43
- Berger, J., Davoine, T., Schuster, P. and Strohner, L. (2016) 'Cross-country differences in the contribution of future migration to old-age financing' *International Tax Public Finance* 23: 1160–1184
- Besley, T. and Persson, T. (2014) 'Why do developing countries tax so little?' *Journal of Economic Perspectives* 28(4): 99–120
- Blau, F.D. and Mackie, C. (2017) *The economic and fiscal consequences of immigration*. Washington DC: The National Academies of Sciences
- Blinder, S. and Markaki, Y. (2018) *Europeans' attitudes to immigration from within and outside Europe: a role for perceived welfare impacts?* Working Paper. Oxford: REMINDER Project
- Bogdanov, L., Hristova, A., Yotov, K., Bruno, E., Valcke, A. and Barber, T. (2014) *Fiscal impact of EU migrants in Austria, Germany, the Netherlands and the United Kingdom*. Brussels: European Citizen Action Service
- Bohme, M.H. and Kups, S. (2017) *The economic effects of labour immigration in developing countries: a literature review*. OECD Development Centre Working Paper 335. Paris: OECD
- Bonin, H., Raffelhüschen, B. and Walliser, J. (2000) 'Can immigration alleviate the demographic burden?' *FinanzArchiv* 57(1): 1–21
- Camarota, S.S. (2004) *The high cost of cheap labor: the impact of illegal immigration on the federal budget*. Washington DC: Center for Immigration Studies
- Channel 4 (2019) 'Ways to change the world: Esther Duflo'. Podcast, 13 November ([www.channel4.com/news/series-3-episode-27-esther-duflo](http://www.channel4.com/news/series-3-episode-27-esther-duflo))
- Chojnicki, X. (2013) 'The fiscal impact of immigration in France: a generational accounting approach' *The World Economy* 36(8): 1065–1090
- Chojnicki, X., Docquier, F. and Ragot, L. (2011) 'Should the US have locked heaven's door? Reassessing the benefits of post-war immigration' *Journal of Population Economics* 24: 317–359
- Chojnicki, X. and Ragot, L. (2016) 'Impacts of immigration on an ageing welfare state: an applied general equilibrium model for France' *Fiscal Studies* 37(2): 258–284
- Chojnicki, X., Sokhna, N.P. and Ragot, L. (2018) *The budgetary impact of 30 years of immigration in France: (1) an accounting approach*. CEPII Working Paper. Paris: Centre d'Études Prospectives et d'Informations Internationales
- Clemens, M., Huang, C., Graham, J. and Gough, K. (2018) *Migration is what you make it: seven policy decisions that turned challenges into opportunities*. Washington DC: Center for Global Development
- Clements, B., Dybczak, K., Gaspar, V., Gupta, S. and Soto, M. (2015) 'The fiscal consequences of shrinking population'. IMF Staff Discussion Note SDN/15/21. Washington DC: International Monetary Fund
- Collado, M.D., Iturbe-Ormaetxe, I. and Valera, G. (2004) 'Quantifying the impact of immigration on the Spanish welfare state' *International Tax and Public Finance* 11(3): 335–353

- D'Albis, H., Boubtane, E. and Coulibaly, D. (2018a) 'Macroeconomic evidence suggests that asylum seekers are not a burden for Western European countries' *Science Advance* 4(6): eaaq0883
- D'Albis, H., Boubtane, E. and Coulibaly, D. (2018b) *Immigration and public finances in OECD countries*. Working Paper 2018 - 59. Paris: Paris School of Economics
- Dempster, H. and Hargrave, K. (2017) *Understanding public attitudes towards refugees and migrants*. London: Overseas Development Institute
- Dungan, P., Fang, T. and Gunderson, M. (2012) *Macroeconomic impacts of Canadian immigration: results from a macro-model*. IZA Discussion Paper 6743. Bonn: IZA – Institute of Labor Economics
- Dustmann, C. and Preston, I. (2007) 'Racial and economic factors in attitudes to immigration' *The B.E. Journal of Economic Analysis and Policy* 7(1): 62
- Dustmann, C., Frattini, T. and Halls, C. (2010) 'Assessing the fiscal costs and benefits of A8 migration to the UK' *Fiscal Studies* 31(1): 1–41
- Dustmann, C. and Frattini, T. (2014) 'The fiscal effects of immigration to the UK' *The Economic Journal* 124(22): 593–643
- Edo, A., Ragot, L., Rapoport, H., Sardoschau, S. and Steinmayer, A. (2018) 'The effects of immigration in developed countries: insights from recent economic research'. CEPII Policy Brief. Paris: Centre d'Études Prospectives et d'Informations Internationales
- Ekberg, J. (2011) 'Will future immigration to Sweden make it easier to finance the welfare system?' *European Journal of Population* 27: 103–124
- European Commission (2016) *An economic take on the refugee crisis: a macroeconomic assessment for the EU*. European Economy Institutional Paper 033. Luxembourg: Publications Office of the European Union
- Evans, W.N. and Fitzgerald, D. (2017) *The economic and social outcomes of refugees in the United States: evidence from the ACS*. Working Paper 32498. Cambridge, MA: National Bureau of Economic Research
- Fasani, F., Frattini, T. and Minale, L. (2018) *(The struggle for) refugee integration into the labour market: evidence from Europe*. IZA Discussion Paper 11333. Bonn: IZA – Institute of Labor Economics
- Fehr, H., Jokisch, S. and Kotlikoff, L.J. (2004) 'The role of immigration in dealing with the developed world's demographic transition' *FinanzArchiv* 60(3): 296–324
- Ferguson, K. (2019) 'German economy not aging gracefully' *DW.com*, 25 February ([www.dw.com/en/german-economy-not-aging-gracefully/a-47499524](http://www.dw.com/en/german-economy-not-aging-gracefully/a-47499524))
- Foresti, M. and Hagen-Zanker, J. (2018) *Migration and development: how human mobility can help achieve the Sustainable Development Goals*. London: Overseas Development Institute
- Furlanetto, F. and Robstad, Ø. (2016) *Immigration and the macroeconomy: some new empirical evidence*. Working Paper 18/2016. Oslo: Norges Bank
- Gal, Z. (2018) 'Fiscal consequences of the refugee crisis' *International Migration* 57(5): 341–354
- Gelb, S. and Krishnan, A. (2018) 'Technology, migration and the 2030 Agenda for Sustainable Development'. ODI Briefing Note. London: Overseas Development Institute
- Gerdes, C. (2007) 'Determination of net transfers for immigrants in Germany'. Study Paper 16. Copenhagen: The Rockwool Foundation Research Unit
- Gerdes, C., Schultz-Nielsen, M.L. and Wadensjö, E. (2011) 'The significance of immigration for public finances in Denmark'. Rockwool Foundation Research Unit Study Paper 35. Odense: University Press of Southern Denmark
- Gott, C. and Johnston, K. (2002) 'The migrant population in the UK: fiscal effects'. Development and Statistics Directorate Occasional Paper 77. London: Home Office
- Grubel, H. (2005) 'Immigration and the welfare state in Canada: growing conflicts, constructive solutions'. Public Policy Sources 84. Vancouver: Fraser Institute
- Grubel, H. and Grady, P. (2011) 'Immigration and the Canadian welfare state 2011: studies in immigration and refugee policy'. Vancouver: Fraser Institute
- Gustafsson B. and Österberg T. (2001) 'Immigrants and the public sector budget – accounting exercise for Sweden' *Journal of Population Economics* 14: 689–708

- Hagen-Zanker, J., Mosler Vidal, E. and Sturge, G. (2017) 'Social protection, migration and the 2030 Agenda for Sustainable Development'. ODI Briefing Note. London: Overseas Development Institute
- Hansen, M.F., Schltz-Nielsen, M.L. and Traenes, T. (2017) 'The fiscal impact of immigration to welfare states of the Scandinavian type' *Journal of Population Economics* 30: 925–952
- Hawkins, S., Yudkin, D., Juan-Torres, M. and Dixon, T. (2018) *Hidden tribes: a study of America's polarized landscape*. New York: More in Common
- Hennessey, G. and Hagen-Zanker, J. (2018) 'Migrants' access to basic services'. Data Bulletin series: informing the Global Compact for Migration. Geneva: International Organization for Migration
- Hinte, H. and Zimmermann, K.F. (2014) 'Does the calculation hold? The fiscal balance of migration to Germany and Denmark'. Policy Paper 87. Bonn: IZA – Institute of Labor Economics
- Holler, J. and Schuster, P. (2017) *Long-run fiscal consequences of refugee migration – the case of Austria*. Vienna: Austrian Fiscal Advisory Council
- Holmøy, E. and Strøm, B. (2012) *Macroeconomics and government finances in different immigration scenarios*. Report No 15/2012. Oslo: Statistics Norway
- Izquierdo, M., Jimeno, J. and Rojas, J. (2010) 'On the aggregate effects of immigration in Spain' *SERIEs* 1(4): 409–432
- Javdani, M. and Pendakur, K. (2011) 'Fiscal transfers to immigrants in Canada'. Working Paper Series 11-08. Vancouver: Metropolis British Colombia
- Kaczmarczyk, P. (2015) *Burden or relief? Fiscal impacts of recent Ukrainian migration to Poland*. Working Paper 8779. Bonn: IZA – Institute of Labor Economics
- Kancs, D. and Lecca, P. (2017) *Long-term social, economic and fiscal effects of immigration into the EU: the role of the integration policy*. JRC Working Papers in Economics and Finance, 2017/4. Luxembourg: Publications Office of the European Union
- Kitao, S., Imrohorglu, S. and Yamada, T. (2016) *Can guest workers solve Japan's fiscal problems?* Paper E-105. . Tokyo: Tokyo Center for Economic Research (TCER)
- Lee, R. and Miller, T. (2000) 'Immigration, social security, and broader fiscal impacts' *American Economic Review* 90(2): 350–354
- Liebig, T. and Mo, J. (2013) *International migration outlook 2013*. Paris: OECD
- Lustig, N. (2018) 'Fiscal policy, income re distribution, and poverty reduction in low- and middle-income countries' in N. Lustig (ed.) *Commitment to equity handbook: estimating the impact of fiscal policy on inequality and poverty*: 477–515. Washington DC: Brookings Institution Press
- Mallet, R. (2018) *Decent work, migration and the 2030 Agenda for Sustainable Development*. London: Overseas Development Institute
- Marbach, M., Hainmueller, J. and Hangartner, D. (2017) *The long-term impact of employment bans on the economic integration of refugees*. Working Paper 3618. Stanford CA: Stanford University Graduate School of Business
- Martinsen, D.S. and Pons Rotger, G. (2017) 'The fiscal impact of EU immigration on the tax-financed welfare state: testing the "welfare burden" thesis' *European Union Politics* 18(4): 620–639
- Mayr, K. (2005) 'The fiscal impact of immigrants in Austria – a generational accounting analysis' *Empirica* 32(2): 181–216
- MigrationWatch (2006) 'The fiscal contribution of migrants'. Economic Briefing Paper 1.9. London: MigrationWatch UK
- MigrationWatch (2014) *An assessment of the fiscal effects of immigration to the UK*. London: MigrationWatch UK
- MigrationWatch (2016) *The fiscal effects of immigration to the UK 2014/15*. London: MigrationWatch UK
- Miller, M. and Long, C. (2017) 'Taxation and the Sustainable Development Goals: do good things come to those who tax more?' ODI Briefing Paper. London: Overseas Development Institute

- Moscorola, F.C. (2001) *The effects of immigration inflows on the sustainability of the Italian welfare state*. Working Paper 6/01. Turin: Centre for Research on Pensions and Welfare Policies
- Nana, G., Sanderson, K. and Hodgson, R. (2009) *Scenarios using a computable general equilibrium model of the New Zealand economy*. Economic Impacts of Immigration Working Paper Series. Wellington: Department of Labour
- Nasser, R. and Symansky, S. (2014) *The fiscal impact of the Syrian refugee crisis on Jordan*. Amman: Jordan Fiscal Reform II Project
- Nyman, P. and Ahlskog, R. (2018) 'Fiscal effects of intra-EEA migration'. Oxford: REMINDER Project
- OECD – Organisation for Economic Co-operation and Development (2017) *Making integration work*. Paris: OECD ([https://read.oecd-ilibrary.org/social-issues-migration-health/making-integration-work\\_9789264279520-en#page8](https://read.oecd-ilibrary.org/social-issues-migration-health/making-integration-work_9789264279520-en#page8))
- OECD and ILO – International Labour Organization (2018) *How immigrants contribute to developing countries' economies*. Paris: OECD
- Officina Economica (2006) *Immigration and the Spanish economy 1996–2006*. Madrid: Economic Bureau of the President
- Österman, M., Palme, J. and Ruhs, M. (2019) *National institutions and the fiscal effects of EU migrants*. Oxford: REMINDER Project
- Oxford Economics (2018) *The fiscal impact of immigration on the UK: a report for the Migration Advisory Committee*. Oxford: Oxford Economics
- Preston, I. (2014) 'The effect of immigration on public finances' *Economic Journal* 124(580): 569–592
- Rector, R., Kim, C. and Watkins, S. (2007) 'The fiscal cost of low-skill households to the U.S. taxpayer'. Washington DC: The Heritage Foundation
- Rector, R. and Richwine, J. (2013) 'The fiscal cost of unlawful immigrants and amnesty to the U.S. taxpayer'. Washington DC: The Heritage Foundation
- Roodenbreg, H., Euwals, R. and ter Reeke, H. (2003) *Immigration and the Dutch economy*. The Hague: CPB Netherlands Bureau for Economic Policy Analysis
- Rowthorn, R. (2008) 'The fiscal impact of immigration on the advanced economies' *Oxford Review of Economic Policy* 24(3): 560–580
- Rowthorn, R. (2014) *Large-scale immigration: its economic and demographic consequences for the UK*. London: Civitas
- Rueben, K. and Gault, S. (2017) *State and local fiscal effects of immigration*. Washington DC: Urban Institute
- Ruist, J. (2014a) *The fiscal consequences of unrestricted immigration from Romania and Bulgaria*. Working Papers in Economics 584. Gothenburg: University of Gothenburg
- Ruist, J. (2014b) 'Free immigration and welfare access: the Swedish experience' *Fiscal Studies* 35(1): 19–39
- Ruist, J. (2015) 'The fiscal cost of refugee immigration: the example of Sweden' *Population and Development Review* 41: 567–581
- Ruist, J. (2019) 'The fiscal aspect of the refugee crisis' *International Tax and Public Finance* 1–15
- Samuels, F. (2018) 'Migration, health and the 2030 Agenda for Sustainable Development' *Migration Policy Practice* 8(3): 21–25
- Schou, P. (2006) 'Immigration, integration and fiscal sustainability' *Journal of Population Economics* 19: 671–689
- Shimasawa, M. and Oguro, K. (2010) 'Impact of immigration on the Japanese economy: a multi-country simulation model' *Journal of the Japanese and International Economies* 24(4): 586–602
- Sinn, H. and Werding, M. (2001) 'Immigration following EU Eastern enlargement' *CEifo Forum* 2(2): 40–47
- Slack, A., Wu, J. and Nana, G. (2007) *Fiscal impacts of immigration 2005/2006*. Wellington: Department of Labour
- Sriskandarajah, D., Cooley, L. and Reed, H. (2005) *Paying their way: the fiscal contribution of immigrants in the UK*. London: Institute for Public Policy Research

- 
- Storesletten, K. (2000) 'Sustaining fiscal policy through immigration' *Journal of Political Economy* 108(2): 300–323
- Storesletten, K. (2003) 'Fiscal implications of immigration – a net present value calculation' *Scandinavian Journal of Economics* 105(3): 487–506
- Tati, G. (2008) 'The immigration issues in the post-apartheid South Africa: discourses, policies and social repercussions' *Space Populations Societies* 3: 423–440
- Vargas-Silva, C. (2015) 'The fiscal impact of immigrants: taxes and benefits' in B. Chiswick and P. Miller (eds.) *Handbook of the economics of international migration, vol. 1*: 845–875. Amsterdam: Elsevier
- Vargas-Silva, C. and Ruiz, I (2018) 'Differences in labour market outcomes between natives, refugees and other migrants in the UK' *Journal of Economic Geography* 18(4): 855–885
- Wadensjö, E. (2000) 'Immigration, the labour market and public finances in Denmark' *Swedish Economic Policy Review* 7(2): 59–83
- Wadensjö, E. and Orrje, H. (2002) *Immigration and the public sector in Denmark*. Aarhus: Aarhus University Press
- Wadensjö, E. (2007) 'Immigration and net transfers within the public sector in Denmark' *European Journal of Political Economy* 23(2): 472–485

# Annex 1 Repository of studies

**Table A1 Repository of empirical studies, summarised by country focus, type of immigration, study type and fiscal impact**

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
Australia	Access Economics (2008)	Dynamic <i>Migrant Fiscal Impact Model</i>	Net fiscal impact per 1,000 new immigrants in million AUD	Base year 2006/7, projected 20 years	All (working age)	Positive	3.4 million AUD in year 1 7.7 million AUD in year 10 8.4 million AUD in year 20
			Net fiscal impact per 1,000 new refugees in million AUD		Refugees (working age)	Initially negative, eventually positive	–20.1 million AUD in year 1 1.1 million AUD in year 10 4.3 million AUD in year 20
Austria	Mayr (2005)	Dynamic <i>Generational Accounting</i>	Lifetime tax burden on future generations with a projected flow of 10,000 extra immigrants per year compared to current flows	Base year 1998	All	Positive	65.6% compared to 71.2%
	Holler and Schuster (2018)	Dynamic <i>General Equilibrium</i>	Net fiscal impact € per capita	2015–2060	Refugees: 2015–2020 cohort	Initially negative, eventually positive	–10,000 EUR in 2020 –2,000 EUR in 2040 3,000 EUR in 2060

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact		
						Direction	Details	
Canada	Grubel (2005)	Static	Net fiscal impact in CAD per capita	2000	All: 1990 cohort	Negative	–6,294 CAD	
	Grubel and Grady (2011)	Static	Net fiscal impact in billion CAD	2005–2006	All: 1987–2004 cohort	Negative	–16.3 billion CAD to –23.6 billion CAD (depending on assumptions)	
	Dungan et al. (2012)	Dynamic <i>Macroeconomic</i>	Net fiscal impact in billion CAD in 2021 with simulated flow of 100,000 extra immigrants	2011–2021	All	Positive	14 billion CAD	
	Javdani and Pendakur (2014)	Static	Net fiscal impact in CAD per capita	2005–2006	All: 1970–2004 cohort	Negative	–500 CAD	
Denmark	Wadensjo (2000)	Static	Net fiscal impact as % GDP	1997	All	Negative	–0.7%	
					Western	Positive	0.1%	
					Non-Western	Negative	–0.8%	
	Wadensjo and Orrje (2002)	Static	Net fiscal impact in DKR per capita		1991	Non-Western	Negative	–48,000 DKR
					1995			–62,600 DKR
					1996			–63,700 DKR
					1997			–58,200 DKR
					1998			–50,500 DKR
	Schou (2006)	Dynamic <i>General Equilibrium</i>	Projected net fiscal impact of an immigration flow of a 0.1% increase in population per year as % GDP in 2101	2007–2101	All	Negative	–0.14%	
					With immediate integration into labour market	Positive	2.24%	
Wadensjo (2007)	Static	Net fiscal impact in DKK per capita		Western	Positive	49,000 DKK and more positive than native (35,000 DKK)		
				Non-Western	Negative	–41,000 DKK		

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact				
						Direction	Details			
Denmark (continued)	Gerdes et al. (2011)	Static	Net fiscal impact in billion DKK	2004	Western	Positive	2.6 billion DKK			
				2004	Non-Western	Negative	–12.8 billion DKK			
				2008	Western	Positive	3.9 billion DKK			
				2008	Non-Western	Negative	–9.1 billion DKK			
				2008	Non-Western excluding refugees	Negative	–2.2 billion DKK			
	Hansen et al. (2017)	Dynamic <i>NPV</i>	Average net lifetime EUR per person-year	Lifetime	All (2013 cohort)	Negative	–637 EUR			
					Western (2013 cohort)	Positive	2,546 EUR			
					Non-Western (2013 cohort)	Negative	–1,070 EUR			
					Non-Western excluding refugees (2013 cohort)	Negative	–1,738 EUR			
					Dynamic <i>Macroeconomic</i>	Net fiscal impact in billion EUR in 2050 of projected immigration flows	2050	All	Positive	0.4 billion EUR
Western	Positive	1.5 billion EUR								
Non-Western	Negative	–1.64 billion EUR								
Martinsen and Rotger (2017)	Static	Net fiscal impact in billion EUR	2002–2013	EU	Positive	6.6 billion EUR				
France	Chojnicki (2013)	Static	Net fiscal impact as % GDP	2005	All	Positive	0.2%			
					Dynamic <i>Generational Accounting</i>	Lifetime tax burden on future generations with a projected flow of 100,000 per year compared to no new immigration after 2005	Base year 2005	All	Positive	14.2% (compared to 14.5%)
								High-skilled	Positive	11.4% (compared to 14.5%)
								50% high-skilled	Positive	12.8% (compared to 14.5%)

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
France (continued)	Chojnicki and Ragot (2016)	Dynamic <i>Generational Accounting</i>	Increase in spending on social protection required if no net migration after 2010 as % GDP	2100	All	Positive	2%
	Chojnicki et al. (2018)	Static	Overall net fiscal impact as % GDP	1979–2011	All	Negative	–0.5%
				1979		Negative	–0.12%, worse than natives
				1984		Negative	–0.18%, better than natives
				1989		Positive	0.05%, better than natives
				1995		Negative	–0.21%, better than natives
				2001		Negative	–0.02%, worse than natives
				2006		Negative	–0.08%, worse than natives
				2011		Negative	–0.49%, better than natives
Germany	Bonin et al. (2000)	Dynamic <i>Generational Accounting</i>	Average lifetime net fiscal contribution of 1996 cohort in USD	Base year 1996	All: 1996 cohort	Positive	55,400 USD
					All	Positive	68,300 USD
	Sinn et al. (2001)	Static	Net fiscal impact in EUR per capita	1997	All	Negative	–748 EUR; but positive 859 EUR for migrants who have been in Germany for over 25 years

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
Germany (continued)	Loeffelholz et al. (2004)	Static	Net fiscal impact as % GDP	1997	All	Positive	1%
	Gerdes (2007)	Static	Net fiscal impact in EUR per capita	2002	Non-Western	Negative	−4,234 EUR
	Bach et al. (2017)	Dynamic <i>Macroeconomic</i>	Yearly average fiscal impact in EUR; EUR per capita; GDP	2030	Refugees: 2015 cohort current integration levels	Negative	−2.1 billion EUR; −26 EUR per capita for 15-year period (becomes positive after 11 years but does not offset previous costs); −0.07%.
			Yearly average fiscal impact in EUR compared to current integration levels; and in EUR per capita		Refugees: 2015 cohort with improved integration policies (vocational training and language)	Negative overall (but less negative)	689 million EUR; 8 EUR per capita; 0.02%
Italy	Moscorola (2001)	Dynamic <i>Generational Accounting</i>	Reduction of the inter-generational budget imbalance with 50,000 immigrants per year in % points		All	Positive	6%

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
Japan	Shimasawa and Oguro (2010)	Dynamic <i>General Equilibrium</i>	Reduction in public debt to GDP ratio in % with immigration flow of 150,000 per year compared to no immigration	2050	All	Positive	699% compared to 719%
	Kitao et al. (2016)	Dynamic <i>General Equilibrium</i>	Reduction in consumption tax in % points with guest worker programme – projected immigration flow of 200,000 guest workers for 10 years		Guest workers	Positive	2–3%
Netherlands	Roodenberg et al. (2003)	Dynamic <i>Generational Accounting</i>	Lifetime fiscal impact EUR per capita	Lifetime	Non-Western (arriving as newborn)	Negative	–95,000 EUR
					Non-Western (arriving aged 25)	Negative	–43,000 EUR
					Non-Western	Negative	0.34%
					with same socio-economic characteristics as Dutch natives	Positive	0.01%
			Adjustment of tax rate in % points required to make the future budget viable with annual immigration flow of 0.05%				

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
New Zealand	Slack et al. (2007)	Static	Net fiscal impact in billion NZD	2005–2006	All	Positive	3.3 billion NZD
			Net fiscal impact in NZD per capita		All: arrived less than 5 years ago	Positive	2,680 NZD
					All: arrived less than 5–14 years ago	Positive	3,470 NZD
		All: arrived over 15 years ago	Positive	4,280 NZD			
	Nana et al. (2009)	Dynamic <i>General Equilibrium</i>	Net fiscal impact as % GDP with doubling immigration to 40,000 immigrants per year in 2021	2021	All	Positive	0.2%
Norway	Holmoy and Strom (2012)	Dynamic <i>General Equilibrium</i>	Net fiscal impact as % GDP in 2100 with increase of 5,000 immigrants per year	2015–2100	OECD	Positive	1%
					Non-OECD	Negative	–0.3%
	Furlanetto and Robstad (2017)	Dynamic <i>Macroeconomic</i>	Net fiscal impact of an immigration shock	Use data from 1990–2014	OECD	Positive (small)	Immigration shock is positive in short run and neutral in long run
Poland	Kaczmarczyk (2015)	Static	Net fiscal impact in PLN	2012	Ukrainians in Warsaw	Positive	More beneficial fiscal impact than natives

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
Spain	Collado et al. (2004)	Dynamic <i>Generational Accounting</i>	Increase in fiscal burden on future generations in a scenario of zero immigration versus 60,000 immigrants per year		All	Positive	16%
	Oficina Economica (2006)	Static	Net fiscal impact as % GDP	2005	All	Positive	0.5%
	Izquierdo et al. (2010)	Dynamic <i>General Equilibrium</i>	Net fiscal impact of a projected immigration flow as % GDP per capita	1995–2050	Low-skilled High-skilled	Positive Positive	
Sweden	Gustafsson and Oesterberg (2001)	Static	Net fiscal impact as % GDP	1983–1992	All	Positive, negative in 1992	
	Storesletten (2003)	Dynamic <i>NPV</i>	Net lifetime SEK per capita	Lifetime	All Aged 20–30	Negative Positive	–175,000 SEK 0.2 million SEK
	Ekberg (2011)	Dynamic <i>NPV</i>	Net fiscal impact in 2050 as % GDP; billion SEK	2006–2050	All (favourable labour market situation)	Positive	0.97%; 33 billion SEK
					with unfavourable market situation	Negative	–1.56%; –114.8 billion SEK
Ruist (2014a)	Static	Net fiscal impact in SEK per capita	2011	Bulgarians and Romanians: 2008–2010 cohort	Positive	30,000 SEK	

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
Sweden (continued)	Ruist (2014b)	Static	Net fiscal impact in SEK per capita	2007	EU A10	Positive	Minor, zero or slightly positive
		Dynamic <i>NPV</i>	Lifetime contribution in SEK per capita			Mixed	Between –150,600 and +143,511 SEK depending on interest rates, income assimilation rates and allocation of public goods
	Ruist (2015)	Static	Net fiscal impact as % GDP	2007	Refugees	Negative	–1%
	Alden and Hammarstedt (2016)	Static	Net fiscal impact in SEK per capita	2006–2012	Refugees: 2005–2007 cohort	Negative	–37,000 and –125,000 SEK in 2012 (depending on how public costs are allocated)
	Ruist (2019)	Dynamic <i>NPV</i>	Average annual fiscal net contribution over the lifetime in SEK per capita	2015	Refugees (from countries with stronger labour market performance <sup>a</sup> )	Negative (natives also negative but less so)	–53,000 SEK, positive between 15 and 40 years in country but does not outweigh the net fiscal costs beforehand and afterwards
				Refugees (from countries with weaker labour market performance <sup>b</sup> )	Negative (natives also negative but less so)	–94,000 SEK, positive between 20 and 30 years in country but does not outweigh the net fiscal costs before and after	

a Former Yugoslavia, Ethiopia, Eritrea and Iran.

b Somalia and Iraq.

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
UK	Gott and Johnson (2002)	Static	Net fiscal impact in billion GBP	1999–2000	All	Positive	2.5 billion GBP
	Sriskandarajah et al. (2005)	Static	Net fiscal impact in billion GBP	2003–2004	All	Negative	–0.4 billion GBP
	MigrationWatch (2006)	Static	Net fiscal impact in billion GBP	1999–2000	All	Negative	–1 billion GBP
	Dustmann et al. (2010)	Static	Revenue/expenditure ratio migrants v. natives	2005–2009	EU A8	Positive	1.35–1.6
	Rowthorn (2014)	Static	Net fiscal impact in billion GBP	2001–2011	EEA 2001–2011 cohort	Negative	–0.3 billion GBP
					Non-EEA 2001–2011 cohort		–29.7 billion GBP
	MigrationWatch (2014)	Static	Net fiscal impact in billion GBP	1995–2011	All	Negative	–148 billion GBP
					EEA	Negative	–13.6 billion GBP
					Non-EEA	Negative	–134.9 billion GBP
					2001–2011	EEA	Negative
EEA: 2000 onwards cohort					Negative	–0.25 billion GBP	
Non-EEA					Negative	–116.8 billion GBP	
Non-EEA: 2000 onwards cohort					Negative	–27.17 billion GBP	



Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact								
						Direction	Details							
UK (continued)	Oxford Economics (2018)	Static	Net fiscal impact in billion GBP	2016–2017	EEA	Positive	4.7 billion GBP							
					Non-EEA	Negative	–9 billion GBP							
			All	Positive	400 GBP									
			EEA	Positive	2,300 GBP									
		Dynamic NPV	Net fiscal contribution relative to the native-born population in GBP per capita	Lifetime (50 years)	EEA: 2016 cohort	Positive	78,000 EUR							
					Non-EEA: 2016 cohort	Positive	28,000 GBP							
US	Auerbach and Oreopoulos (2000)	Dynamic <i>Generational Accounting</i>	Increase in fiscal burden faced by future generations in scenario of no future immigration after 2000		All	Positive, minor	3.5%–3.9%							
								Lee and Miller (2000)	Dynamic NPV	Net fiscal impact of 100,000 additional immigrants per year in year 75 as % of tax revenue	Base year 1998, projection of 75 years	All	Positive	0.4%
	% state tax revenue	Negative	–0.5%											
	Storesletten (2000)	Dynamic <i>General Equilibrium</i>	Average lifetime net fiscal impact in USD per capita	Lifetime	High-skilled	Positive	96,000 USD							
					Medium-skilled	Negative	–2,000 USD							
					Low-skilled	Negative	–36,000 USD							
					Highly skilled, aged 40–44, without children	Positive	4.4%							

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
US (continued)	Camarota (2004)	Static	Net fiscal impact in USD; in USD per household	2002	Irregular	Negative	–10.4 billion USD; –2,700 USD per household
	Rector et al. (2007)	Static	Net fiscal impact in USD	2004	Low-skilled	Negative	–89.1 billion USD
	Chojnicki et al. (2011)	Dynamic <i>General Equilibrium (historical)</i>	Net fiscal impact in GDP % points of historical immigration compared to if no migration	1945–2000	All	Positive	0.3%
	Rector and Richwine (2013)	Static	Net fiscal impact per household in USD	2010	Irregular	Negative	–4,344 USD
					Regular	Negative	–14,387 USD
	Blau and Mackie (2017)	Static	Net fiscal impact in USD per capita	2013	All	Negative	Negative overall but positive for federal level (note natives also negative overall)
					All	Positive	963 USD
Dynamic <i>NPV</i>					Net fiscal impact in year 75 in USD per capita	75–year projection	All
	All (recently arrived)	Positive	259,000 USD (no public goods) or 173,000 USD (public goods)				
				Low-skilled	Negative	(but less of a net fiscal burden than low-skilled natives)	

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
US (continued)	Rueben and Gault (2017)	Static	Difference net fiscal impact between immigrants and natives in USD per capita, state and local government only	2011–2013	All	Negative	–2,950 USD (average cost); –450 USD (marginal cost)
	Evans and Fitzgerald 2017	Dynamic	Net fiscal impact in USD per capita over 20 years	20–year projection	Refugees (aged 18–45; 2010–2014 cohort)	Positive	21,324 USD
Western Europe <sup>c</sup>	D’Albis et al. (2018a)	Dynamic <i>Macroeconomic</i>	Net fiscal impact (GDP) with one asylum-seeker per 1,000 inhabitants	Use data from 1995–2015	Asylum-seekers	Positive	
			Net fiscal impact (GDP) with one immigrant per 1,000 inhabitants		All	Positive	
19 OECD countries <sup>d</sup>	D’Albis et al. (2018b)	Dynamic <i>Macroeconomic</i>	Net fiscal impact (GDP) with one immigrant per 1,000 inhabitants	Use data from 1980–2015	All	Positive	

c Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Iceland, Italy, the Netherlands, Norway, Spain, Sweden, Portugal and the UK

d Australia, Canada, Japan and the United States, and the 15 Western European countries: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Iceland, Italy, the Netherlands, Norway, Spain, Sweden, Portugal and the UK.

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
EU	Kancs and Lecca (2018)	Dynamic <i>General Equilibrium</i>	Net present value of projected refugee flows	2016–2040	Refugees	Negative	Negative until year 19
			with advanced integration policies			Positive	Negative until year 9 (integration policy investment paid off)
			with full integration policies			Positive	Negative until year 10 (integration policy investment paid off)
EU <sup>e</sup>	Oesterman et al. (2019)	Static	Net fiscal impact in % GDP (marginal costs)	2005–2015	EU	Positive	Between 0% and 0.54% depending on institutional regime
Comparative:	Berger et al. (2016)	Dynamic <i>General Equilibrium</i>	Income tax reduction in % points of projected immigration flows	2060	All		
Austria						Positive	14.3%
Germany						Positive	7.3%
Poland						Positive	1.7%
UK						Positive	6.2%
Comparative:	Bogdanov et al. (2015)	Static	Net fiscal impact in billion EUR	2013	EU		
Austria						Positive	25.3 billion EUR
Germany						Positive	2.6 billion EUR
Netherlands						Positive	1.5 billion EUR
UK						Positive	7.7 billion EUR

e EU countries are grouped by institutional regime, based on labour market/welfare system: basic security (Ireland, Malta and the UK), continental corporatist (Austria, Belgium, France, Germany, the Netherlands and Switzerland), Mediterranean corporatist (Cyprus, Greece, Spain, Italy and Portugal), state insurance, universal (Denmark, Finland, Iceland, Norway and Sweden).

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
Comparative:	Fehr et al. (2004)	Dynamic <i>General Equilibrium</i>	Income tax rate increase % in 2100 with doubled immigration flows compared to current immigration flows	2000–2100	All		
EU						Minor, positive	27.4% compared to 29%
Japan						Minor, positive	22.9% compared to 23.5%
US						Minor, positive	12.8% compared to 13.3% 20.4% (doubling low-skilled migration) 10.8% (doubling high-skilled migration)
Comparative:	Nyman and Ahlskog (2018)	Static	Net fiscal impact as % GDP	Average 2004/5–2014/15	EU		
Austria						Positive	0.38%
Belgium						Positive	0.81%
Bulgaria						Negative	–0.01%
Croatia						Positive	0.17%
Czech Republic						Positive	0.27%
Cyprus						Positive	1.26%
Denmark						Positive	0.32%
Estonia						Negative	–0.15%
Finland						Positive	0.25%
France						Positive	0.25%
Germany						Positive	0.25%
Greece						Positive	0.35%

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
Hungary						Positive	0.39%
Iceland						Positive	0.11%
Ireland						Negative	-0.06%
Italy						Positive	0.35%
Latvia						Negative	-0.06%
Lithuania						Negative	-0.03%
Malta						Positive	0.42%
Netherlands						Positive	0.19%
Norway						Positive	0.87%
Poland						Negative	-0.14%
Portugal						Positive	0.22%
Slovakia						Negative	-0.09%
Slovenia						Negative	-0.05%
Spain						Positive	0.06%
Switzerland						Positive	1.67%
Sweden						Positive	0.38%
UK						Positive	0.31%
Comparative:	OECD (2013)	Static	Net fiscal impact as % GDP	Average 2007–2009	All		
Australia						None	0%
Austria						Positive	0.12%
Belgium						Positive	0.76%
Canada						Negative	-0.06%
Czech Republic						Negative	-0.01%
Denmark						Positive	0.11%
Estonia						Positive	0.49%
Finland						Positive	0.16%
France						Negative	-0.52%
Germany						Negative	-1.13%
Greece						Positive	0.98%
Hungary						Positive	0.08%
Iceland						Positive	0.9%
Ireland						Negative	-0.23%
Italy						Positive	0.98%
Luxembourg						Positive	2.02%
Netherlands						Positive	0.40%

Country	Study	Study type	Outcome variable	Year(s)	Type of immigration	Fiscal impact	
						Direction	Details
Norway						Positive	0.42%
Poland						Negative	-0.32%
Portugal						Positive	0.52%
Slovenia						Positive	0.76%
Slovakia						Negative	-0.06%
Spain						Positive	0.54%
Sweden						Positive	0.2%
Switzerland						Positive	1.95%
UK						Positive	0.46%
US						Positive	0.03%
	OECD and ILO (2018)	Static	Net fiscal impact in % GDP (based on marginal costs)		All	Mixed, generally small and positive	
Argentina				2013		Positive	0.11% (worse than natives)
Costa Rica				2013		Positive	0.27% (better than natives)
Cote d'Ivoire				2008		Positive	0.67% (better than natives)
Dominican Republic				2007		Positive	0.22% (better than natives)
Ghana				2013		Mixed	0.04% (better than natives)
Kyrgyzstan				2013		Negative	-0.55% (worse than natives)
Nepal				2011		Negative	-0.12% (better than natives)
Rwanda				2013		Positive	0.74% (better than natives)
South Africa				2011		Positive	0.85% (better than natives)

Note: EU A8 countries: Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.







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