

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Ruist, Joakim

#### **Working Paper**

# The fiscal consequences of unrestricted immigration from Romania and Bulgaria

CReAM Discussion Paper Series, No. 04/14

#### **Provided in Cooperation with:**

Rockwool Foundation Berlin (RF Berlin)

Suggested Citation: Ruist, Joakim (2014): The fiscal consequences of unrestricted immigration from Romania and Bulgaria, CReAM Discussion Paper Series, No. 04/14, Centre for Research & Analysis of Migration (CReAM), Department of Economics, University College London, London

This Version is available at: https://hdl.handle.net/10419/295470

#### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.







### **Discussion Paper Series**

CDP No 04/14

The fiscal consequences of unrestricted immigration from Romania and Bulgaria

Joakim Ruist

## The fiscal consequences of unrestricted immigration from Romania and Bulgaria

Joakim Ruist\*

#### **Abstract**

When Romania and Bulgaria joined the EU in 2007 Sweden was one of two EU15 countries that did not restrict access to its labor market and welfare systems for Romanian and Bulgarian citizens. This article evaluates the net fiscal contribution in 2011 of Romanian and Bulgarian migrants who arrived in Sweden under this migration regime in 2007-2010. The average net contribution is found to be substantially positive: around 30,000 kronor, or one-sixth of public sector turnover per capita. This result is used to discuss expected corresponding net contributions in other EU15 countries, several of which lifted their restrictions on January 1<sup>st</sup>, 2014. The United Kingdom and Ireland stand out as two countries that unambiguously have reason to expect even more positive contributions.

Keywords: immigration, welfare benefits, public finances, Romania, Bulgaria, EU

JEL codes: H20, H50, J61

<sup>\*</sup> This research was enabled by a research grant from Karl Staaff's foundation, which is gratefully acknowledged.

#### 1 - Introduction

When Romania and Bulgaria joined the European Union in January 2007, thirteen out of the fifteen oldest EU member states (henceforth: the EU15 countries) imposed rules that limited Romanian and Bulgarian citizens' access to their labor markets and welfare systems. The two exceptions were Sweden and Finland. Seven years later, from January 2014, European law forces these restrictions to be lifted in the nine EU countries where they are still in place. This has stirred much public anxiety in several of the richer EU countries, due to fears that citizens of these two substantially poorer countries will migrate in large numbers to the richer countries and impose a heavy burden on their welfare systems. These fears have been voiced most intensely in the UK, where dozens of conservative members of parliament support proposed legislation that would extend access restrictions by another five years.

Similar fears were common also before the major EU enlargement in 2004 when ten new countries became members. These ten (henceforth: the EU10 countries) were also significantly poorer on average than the EU15 countries, although richer than Romania and Bulgaria. On that occasion transitional access restrictions for EU10 citizens were imposed by twelve EU15 countries, with the UK, Ireland, and Sweden being the exceptions. In the case of migrants from the EU10 countries, the fears of a heavy burden on EU15 countries' welfare systems have subsequently been shown to have been unfounded, by research conducted in countries that did not impose restrictions. Dustmann, Frattini, and Halls (2010) showed that migrants from these countries made a positive net contribution on average to public finances in the UK, i.e. that they paid more to the public sector in taxes than they received in the form of welfare grants and public spending. Ruist (forthcoming) reached the same conclusion for Sweden.

However the fact that EU10 migrants made positive net contributions does not imply that this will necessarily be the case also for migrants from Romania and Bulgaria. These two countries have even lower income levels and hence their inhabitants could potentially have stronger incentives to travel to the richer EU15 countries also in cases when their prospects of finding work are poor. Therefore this study provides a similar analysis of the net fiscal contribution in 2011 of Romanian and Bulgarian post-2007 immigrants in Sweden, i.e. in one

<sup>&</sup>lt;sup>1</sup> These nine countries are Austria, Belgium, France, Germany, Luxembourg, Malta, the Netherlands, Spain, and the UK (whereof Malta does not belong to the EU15 group). Source: The European Commission, http://ec.europa.eu/social/main.jsp?catId=508&langId=en

<sup>&</sup>lt;sup>2</sup> Source: The Guardian: http://www.theguardian.com/uk-news/2013/dec/05/tory-rebellion-averted-immigration-bill-delayed

of the two countries that did not even initially restrict their labor market and welfare access. This net contribution is found to be substantially positive: around 30,000 kronor on average, implying a revenue/cost ratio for these migrants around 1.30. This positive result is due to migrants receiving less social transfers and being subject to less government spending compared with the Swedish population on average. This more than balances the fact that migrants on average earn lower incomes and hence pay less in taxes than the population on average.

A discussion of the external validity of the Swedish result highlights that other EU15 countries where more well-known languages are spoken have reason to expect even more positive results than Sweden. Differences in welfare sector sizes between countries should make the results more positive in some countries and less positive in others. Two countries stand out as having unambiguous reason to expect more positive results: the UK and Ireland. They both share the advantages of the English language and of their comparatively small welfare sectors. This conclusion thus indicates that the EU15 country – the UK – where most work is being done to reduce future immigration from Romania and Bulgaria is in fact rather the country that has the least reason to reduce it.

Section 2 of this article explains the data and the empirical method that were used in this study. The empirical results are reported in Section 3, where the results for Romanian and Bulgarian migrants are also compared with corresponding results for other EU migrants in Sweden. Section 4 summarizes the results and discusses their external validity.

#### 2 - Data and method

The individual-level data used in this study is from Statistics Sweden's LINDA database. The database contains individual-level information from different public registers on random samples of 3% of the total Swedish population and 20% of the Swedish immigrant population. The database is longitudinal – i.e. it includes the same individuals each year and each year the samples are also adjusted to remain representative for the respective populations. The database also covers all individuals belonging to the same households as these randomly sampled individuals.

The population of interest in this study is all immigrants from Romania or Bulgaria who arrived in Sweden 2007-2010 and still remain there by the end of 2011 – around 10,000 individuals or 0.1% of the total Swedish population. Nearly 40% of this population – or 3,711

individuals – are included in LINDA as either sampled individuals or their household members. All statistical analyses in this study weigh individuals by the inverse of the sizes of their households, to maximize statistical power while maintaining the representativeness of the sample.

The population of interest also includes any Swedish-born children of these immigrants. The data contains information on household membership yet not on parenthood. Therefore, to identify Swedish-born children of Romanian and Bulgarian immigrants, all LINDA samples 2007-2011 are used. For each year, children who were born during the year are assigned to the immigrant group if the household they belong to contains at least one member of the immigrant group in this year. The total number of Swedish-born children assigned to the immigrant group in this way is 362. This is a reasonable number, considering that more than 70% of the immigrants are aged 20-45. It implies that approximately 4-5% of individual immigrants aged 20-45 had a child in each year. The age distribution of the entire population of interest – including the Swedish-born children – is shown in Figure 1. The figure shows a heavy concentration to ages 20-45 and a secondary peak among younger children.

#### 2.1 - Method

To identify the net fiscal contribution of Romanian and Bulgarian immigrants, this study follows an empirical strategy employed in a long range of previous studies to estimate net fiscal contributions of immigrants in various high-income countries. For a review of this literature, see Rowthorn (2008). This strategy was also used in the recent studies (Dustmann, Frattini, and Halls, 2010; Ruist, forthcoming) on the fiscal contributions of migrants from the countries that became EU members in 2004. Fiscal contributions are calculated by summing up estimated individual contributions to public finances – mostly in the form of taxes – and subtracting individual welfare receipts (transfers) and estimated individual marginal impact on public spending. In the present case individual taxes and transfers are readily available in the LINDA data. Estimating marginal impact on public spending is more complicated, since it involves making assumptions about scale effects. Possibly the marginal spending increments due to new immigrants are smaller than previous average spending per individual, since e.g. public infrastructure, defense etc. are used more efficiently on a larger population (Lee and Miller, 1998). However to avoid overestimating the net contribution of immigrants, this study will still make the conservative assumption that marginal and average public spending are equal.

An overview of estimated Swedish public revenues and costs per capita in 2011 is shown in Table 1, which outlines each element that is to be ascribed to specific individuals in this study. All revenues and costs that are ascribed equally to all individuals are grouped together in the rows *Other public revenue* and *Other public spending*. The rest of this subsection provides the details on how each specific element in Table 1 was ascribed in different amounts to different individuals.

**Direct taxes, study-loan repayments and all individual transfers:** Individual-level information was obtained directly from LINDA.

**Payroll taxes:** These were calculated using information in LINDA on total individual income from labor and private enterprise. These incomes were multiplied with the relevant 2011 payroll tax rates. The payroll tax rate was 15.49% for individuals who were younger than 27 years by the end of the year, 31.42% for individuals aged 27-65, 20.21% for individuals aged 66-73, and zero for individuals older than 73 years.

Consumption taxes: There is no information available on individual consumption. Up to 2009 Statistics Sweden published survey-based information on consumption per household income decile. Consumption levels in 2011 are calculated by assuming that the shape of the consumption-per-decile curve in 2009 remains unchanged in 2011, and then fitting the level of the curve so as to match total consumption tax payments in 2011 (obtained from the Swedish government, 2012).

Child care and schooling: There is no information available on individual use of child care and schooling. Public costs for these activities are distributed evenly across the targeted age groups in the population. Information on public child care and schooling costs per municipality is published online by Statistics Sweden. Child care costs are disaggregated by age groups 1-5 (pre-school age) and 6-12 (school age), and schooling costs by school years 0 (förskoleklass, age 6), 1-9 (grundskola, ages 7-15), and high-school (gymnasium, ages 16-18). These municipal costs are summed to total costs for the public sector and averaged over all individuals in the relevant age groups in the population.

**Hospital care:** There is no information on individual use of hospital care. Hospital care costs are distributed differently across seven age groups<sup>3</sup> using information on total number of hospital treatments (obtained from the national board of health and welfare, 2013), and

\_

<sup>&</sup>lt;sup>3</sup> These are 0-14, 15-24, 25-44, 45-64, 65-74, 75-84, and 85+ years.

average number of treatment days per treatment (obtained from the KOLADA online database) per age group in 2011. The necessary simplifying assumption is that all treatment days cost the same. This cost per treatment day is obtained by dividing the public sector's total hospital care costs inclusive of drugs by the total number of reported treatment days (both numbers obtained from the KOLADA online database).

**Elderly care:** There is no information on individual use of elderly care. Elderly care costs are distributed evenly across six age groups<sup>4</sup> using information on numbers of individuals receiving assistance in their own homes and in elderly care homes respectively per age group in 2011 (obtained from the national board of health and welfare, 2012). Apart from the distinction between assistance in own and elderly care homes, each individual who receives assistance is assumed to cost the same. These costs per individual are calculated by dividing total costs in own and elderly care homes respectively by the total numbers of individuals receiving assistance (all numbers obtained from the KOLADA online database).

**Disability care:** Total public disability care costs (obtained from the KOLADA online database) are distributed evenly across all individuals who are identified as disabled in the LINDA data by having obtained an individual disability support transfer (these transfers are part of the *Other individual transfers* element in Table 1).

Other public revenue and spending: The elements representing other public revenue and spending are calculated by subtracting all specific forms of revenue, transfers, and spending that are outlined in Table 1 from total public sector revenues (182,978 kronor) and costs (182,556) respectively (obtained from the Swedish government, 2012). Partly these two rows represent revenues and costs that are in reality related to specific individuals yet not reported in the data, such as e.g. individual user-fees for public services. However at least on the cost side they primarily represent elements that are not individual-specific, such as e.g. costs for infrastructure, defense, and central public administration. These revenues and costs are thus distributed evenly across the population, natives and immigrants alike.

#### 3 - The net fiscal contribution of Romanian and Bulgarian immigrants

Having distributed all public revenues and costs between all individuals in the sample, the task of estimating the net fiscal contribution of Romanian and Bulgarian immigrants who

\_

<sup>&</sup>lt;sup>4</sup> These are 65-74, 75-79, 80-84, 85-89, 90-94, and 95+ years.

arrived in 2007-2010 and their children simply amounts to averaging all elements in Table 1 across this specific group. The net contribution is then given by the average of

*Total revenue – Total transfers – Total spending – Net financial surplus* 

for this group. The components of this total contribution are given by the average value of each element in Table 1 in the immigrant group minus the corresponding value in the total population. Hence e.g. if these immigrants pay lower taxes than the total population on average this is a negative contribution, and if they receive less transfers this is a positive contribution.

Table 2 reports these averages for Romanian and Bulgarian immigrants (column 1) and the implied net contributions (column 2). A positive sign in column (2) implies a positive contribution – i.e. a larger revenue or a smaller cost – and vice versa. The T values in column (3) are calculated assuming unequal variances between the immigrant group and the total population. They are finite-sample corrected assuming that at least 35% of the immigrant target population is included in the sample. Column (2) of Table 2 shows that Romanian and Bulgarian migrants who arrived in Sweden 2007-2010 make a large positive net contribution to Swedish public finances in 2011. The average contribution is approximately 30,000 kronor per individual, or one-sixth of total public sector costs per capita. Alternatively, the ratio between public revenues and costs relating to this group is as large as 1.30. In more detail, the immigrant group pays substantially lower taxes than the total population on average, due to their lower average earnings. Yet these lower revenues are more than balanced by lower public costs for this group. Pension and elderly care costs for these immigrants are almost zero, since almost none of them are over 65. They also receive less than the total population on average of almost all forms of income transfers and cost less in all forms of age-related government spending, including child care and schooling.

The only cost element that is larger in the immigrant group than in the total population is basic social assistance. This too is due to the immigrants' higher concentration in working ages. As much as 97% of total basic social welfare payments are received by individuals aged 20-64. In this interval, the average receipt is 1,915 kronor in the total population (444,023 observations) and 1,536 kronor for Romanian and Bulgarian immigrants (2,934 observations). Hence this difference too is negative, and it is significant with a T value of 2.0.

We have thus established that the average Romanian or Bulgarian post-2007 immigrant makes a large and significant contribution to Swedish public finances. Furthermore this result was obtained under the conservative assumption that marginal public costs are equal to average costs, i.e. newly arrived immigrants increase the need for all forms of public spending in proportion to their numbers. Some scholars – notably Lee and Miller (1998) – suggest that this is in fact not the case though. Instead they suggest that there are positive scale effects that imply that immigrants cost less. In the present case this implies that the immigrants' true net contribution to Swedish public finances may be even larger than that reported in Table 2.

Another potential source of bias is the fact that some immigrants in the sample may not be present in Sweden for all twelve months of the year, or in some instances not at all if they have left Sweden without registering remigration. Most of the values in Table 2 - i.e. taxes and transfers – are based on actual reported values and would thus not be affected by this possible oversampling. The five rows that would be affected are consumption taxes, and costs of child care, schooling, hospital care, and elderly care. A rough calculation of the effect of an individual being included in the sample yet not present at all in Sweden suggests that this would overstate the public costs for this individual by around 30,000 kronor, i.e. the sum of the four relevant cost items in column (1) of Table 2. This effect will then be partly balanced be the overestimation of consumption taxes. However the immigrants' average consumption tax in column (1) of Table 2 – which is also around 30,000 kronor – is probably not a good indicator of the magnitude of the overestimation in this case. This is because this value is based on reported household income in Sweden, which is already likely to be lower if the person has not been present. The oversampling bias on consumption taxes is thus more likely to be smaller than 30,000. Hence the net effect of oversampling is likely to be an underestimation of the true net contribution of Romanian and Bulgarian post-2007 immigrants to Swedish public finances.

There is some disagreement in previous literature on whether the net financial surplus or deficit of the public sector should be accounted for or not in a calculation of the net fiscal contributions of immigrants. However in the present case this issue is unimportant, since the net surplus was only 422 kronor per capita.

#### 3.1 – Comparison with other EU immigrants in Sweden

In this subsection the net fiscal contribution of Romanian and Bulgarian immigrants in 2011 is compared with those of other EU immigrants who arrived in Sweden during the same

period – i.e. in 2007-2010. The basic hypothesis is that the net contributions of other EU immigrants should be more positive due to the higher income levels in their home countries. Higher income at home implies that expected income in Sweden needs to be higher for migration to pay off – hence we expect migrants from richer countries to earn more, pay higher taxes, and receive fewer benefits in Sweden. To further investigate these differences we divide other EU-immigrants into two groups: those from the ten countries that became EU members in 2004 (EU10), and those from the remaining fourteen countries (EU14). Average purchasing-power parity adjusted GDP per capita in these country blocks in 2010 were \$19,900 in EU10, and \$35,600 in EU14, compared with \$12,000 in Romania and Bulgaria (calculations based on Heston, Summers, and Aten, 2012; country values are averaged over populations, not countries).

The results are reported in Tables 3 and 4. Looking first at the results for EU10 immigrants in Table 3 we see that these are everywhere highly similar to those for Romanians and Bulgarians. They sum to a net contribution that is only about 4,000 kronor larger. However turning to the results for immigrants from the substantially richer EU14 countries in Table 4 we see that these are substantially different. On the cost side they are highly similar to those of the EU10 countries, and Romania and Bulgaria. Yet on the revenue side we see that public revenues from EU14 immigrants are much more similar to those from the total population, i.e. substantially higher than from the other two immigrant groups.

Generally the expectations of a positive correlation between income levels in home countries and net contributions to Swedish public finances were confirmed, although the difference between EU10 immigrants and Romanian and Bulgarian immigrants was not large.

#### 4 - Summary and discussion

Romanian and Bulgarian migration to EU15 countries is currently at the very center of the political debate in the EU. Most EU15 countries limited Romanian and Bulgarian citizens' access to their labor markets and welfare systems until the end of 2013, for fears of poor migrants otherwise arriving in large numbers and draining public finances in the wealthier EU15 countries. From January 1<sup>st</sup>, 2014 EU law forced these restrictions to be lifted, and this made 2013 a year of intense political discussions about the free movement of workers, which is one of the pillars of the union. This debate has gone furthest in the UK, where a large number of MPs support a bill that would challenge EU law and extend access restrictions by another five years.

At the same time two countries – Sweden and Finland – never imposed any restrictions in 2007 when Romania and Bulgaria joined the EU. The experience of any of these two countries thus has the potential to provide empirical information on whether the perceived threat of non-restricted migration draining public finances is real or not. The present study has shown that in the Swedish case this perception is actually far from reality. Instead the average Romanian or Bulgarian immigrant who arrived after January 2007 made a large positive contribution to Swedish public finances in 2011. This average contribution amounted to about one-sixth of the public sector's per capita costs. Public revenues derived from the immigrants were about 30% larger than public costs relating to them.

The rest of this section discusses the external validity of this result, i.e. what other EU15 countries have reason to expect based on the Swedish experience. In each country the answer is likely to depend on two factors: language, and the size of the welfare system.

#### **4.1 – Implications for other EU15 countries**

The language factor predicts that several EU15 countries may have reason to expect more positive results than Sweden. The Swedish language is not spoken outside Sweden's borders. Hence probably each single Romanian or Bulgarian migrant has arrived in Sweden without prior knowledge of the native language. Such lack of linguistic skills is an important obstacle to labor market entry and performance and hence impacts negatively on the migrant's net contribution to public finances. By contrast the English, Spanish, German, and French languages are learned by substantial numbers of people in other countries. Furthermore, the Romanian language is closely related to the Spanish and Italian languages, implying that learning these foreign languages is substantially easier.

This positive language effect can – and probably will – be partly offset by migrant selection, yet cannot be fully so. Comparing e.g. Sweden and the UK, we may expect the last immigrant in Sweden – the one who was almost indifferent between migrating and not migrating – has about the same earnings potential in Sweden as the last immigrant in the UK has there, due to selection. Yet if we compare the migrants with the highest earnings potentials in the respective countries, those potentials should be higher in the UK, due to the linguistic advantage. With a higher top and a similar bottom of the earnings potential distribution, the average earnings potential – and hence also the average expected net contribution to public finances – is then higher in the UK than in Sweden. The majority of EU15 countries will have this linguistic advantage over Sweden.

The size of the welfare sector factor predicts that some EU15 countries may have reason to expect more positive results than Sweden, and others less positive results. The key issue is migrant selection. Migrants with higher earnings potential have comparatively stronger incentives to select a destination country that redistributes less income, since they will then keep more of their high earnings. Similarly, those with lower potential have comparatively stronger incentives to select a destination country that will give them more in case they fail to provide for themselves. This migrant selection implies that the smaller the welfare sector, the more positive is the expected average net contribution.

Historically the Swedish welfare sector used to be larger than those of all or almost all other EU15 countries, yet this has changed importantly in the last decade. Figure 2 uses OECD data to compare tax wedges and public social expenditure between all EU15 countries in 2011. Sweden ranks only seventh from the top for the tax wedge and sixth for social expenditure. France and Belgium on the other hand are among the top three in both cases, while the UK, Ireland, and Luxembourg are among the bottom four in both.

The discussion of language has indicated that several EU15 countries have reason to expect their Romanian and Bulgarian immigrants to contribute even more to the public sector than those in Swedendo. The discussion of the size of the welfare sector has indicated that the results may be more positive than in Sweden in some countries and less positive in others. Perhaps the most striking conclusion from this discussion is that two countries stand out as having reason to expect more positive results due to both effects: the UK and Ireland. Based on this result the UK has little reason to be the EU15 country that is working hardest to reduce future Romanian and Bulgarian immigration. It is rather the country that should most welcome it.

#### References

Dustmann, Christian, Tommaso Frattini and Caroline Halls (2010), "Assessing the fiscal costs and benefits of A8 migration to the UK", *Fiscal Studies*, 31: 1-41

Heston, Alan, Robert Summers, and Bettina Aten (2012), *Penn World Table version 7.1*, University of Pennsylvania

Lee, Ronald D., and Timothy W. Miller (1998), "The current fiscal impact of immigrants: Beyond the immigrant household", in James P. Smith and Barry Edmonston (eds), *The immigration debate*, National Academy Press, Washington DC

Rowthorn, Robert (2008), "The fiscal impact of immigration on the advanced economies", *Oxford Review of Economic Policy*, 24: 560-580

Ruist, Joakim (forthcoming), "Free immigration and welfare access: the Swedish experience", forthcoming in *Fiscal Studies*, most recent version available at <a href="http://www.economics.gu.se/ruist">http://www.economics.gu.se/ruist</a>

The Swedish government (2012), Årsredovisning för staten 2011, Regeringens skrivelse 2011/12:101, Stockholm, Sverge

The national board of health and welfare (2012), Äldre – vård och omsorg den 1 april 2012

The national board of health and welfare (2013), Sjukdomar i sluten vård 1987-2012

#### **Tables**

Table 1. Overview of Swedish public revenues and costs per capita in 2011

· · · · · · · · · · · · · · · · · · ·	(1)	(2)
	Average amount	Share of total
	(kronor)	costs (%)
Direct taxes	53,449	29.3
Payroll taxes	48,942	26.8
Consumption taxes	36,638	20.1
Study-loan repayments	1,282	0.7
Other public revenue	42,668	23.4
Total revenue	182,978	100.2
Sickness support	2,084	1.1
Public pensions	37,799	20.7
Parental leave support	2,938	1.6
Unemployment support	2,700	1.5
Early retirement	4,368	2.4
Basic social assistance	1,106	0.6
Housing support	344	0.2
Study support	2,626	1.4
Other individual transfers	4,369	2.4
Total transfers	58,335	32.0
Child care	7,042	3.9
Schooling	10,989	6.0
Hospital care	26,482	14.5
Elderly care	27,030	14.8
Disability care	4,813	2.6
Other public spending	47,865	26.2
Total spending	124,221	68.0
Net financial surplus	422	0.2
Total	0	0

Note: N = 825,155. The numbers are based on the sample of 3% of the total population and their household members in LINDA. Observations are weighted by inverse household size to adjust for sampling probabilities.

Table 2. Net fiscal contribution of Romanian and Bulgarian 2007-2010 immigrants

	(1)	(2)	(3)
	Average amount	Contribution	T value of
	(kronor)	(kronor)	contribution
Direct taxes	18,959	-34,489	59.0
Payroll taxes	25,129	-23,813	45.4
Consumption taxes	33,596	-3,042	17.4
Study-loan repayments	135	-1,147	37.8
Other public revenue	42,668	0	_
<b>Total revenue</b>	120,487	-62,491	55.3
Sickness support	457	+1,628	22.3
Public pensions	328	+37,471	291
Parental leave support	1,703	+1,236	8.8
Unemployment support	2,324	+376	2.3
Early retirement	178	+4,190	58.0
Basic social assistance	1,288	-182	1.3
Housing support	282	+62	2.4
Study support	2,023	+603	4.4
Other individual transfers	2,140	+2,229	18.1
<b>Total transfers</b>	10,722	+47,613	128
Child care	6,074	+968	3.3
Schooling	5,737	+5,252	19.5
Hospital care	16,092	+10,390	90.4
Elderly care	1,308	+25,722	160
Disability care	903	+3,909	11.6
Other public spending	47,865	0	_
<b>Total spending</b>	77,980	+46,241	83.5
Net financial surplus	422	0	_
Sum	31,363	+31,363	22.8

Note: N = 4,073. Observations are weighted by inverse household size to adjust for sampling probabilities. The values in column (2) are obtained by subtracting those in column (1) from those in column (1) of Table 1. A positive sign in column (2) represents a larger revenue or a smaller cost, and a negative sign represents a smaller revenue or a larger cost. The T values in column (3) are calculated assuming unequal variances. They are finite-sample corrected assuming that at least 35% of the immigrant target population in included in the sample.

Table 3. Net fiscal contribution of 2007-2010 immigrants from EU10

	(1)	(2)	(3)
	Average amount	Contribution	T value of
	(kronor)	(kronor)	contribution
Direct taxes	22,710	-30,739	71.2
Payroll taxes	29,476	-19,466	61.8
Consumption taxes	32,726	-3,912	38.3
Study-loan repayments	64	-1,218	128
Other public revenue	42,668	0	_
<b>Total revenue</b>	127,644	-55,335	<b>74.9</b>
Sickness support	825	+1,260	21.9
Public pensions	592	+37,207	280
Parental leave support	2,545	+393	4.4
Unemployment support	1,542	+1,158	16.6
Early retirement	95	+4,274	136
Basic social assistance	686	+419	7.4
Housing support	334	+10	0.6
Study support	1,460	+1,166	20.1
Other individual transfers	2,719	+1,650	26.7
<b>Total transfers</b>	10,797	+47,538	217
Child care	8,664	-1,622	9.0
Schooling	8,745	+2,244	12.9
Hospital care	14,820	+11,662	222
Elderly care	509	+26,521	248
Disability care	531	+4,281	28.8
Other public spending	47,865	0	_
<b>Total spending</b>	81,134	+43,087	141
Net financial surplus	422	0	_
Sum	35,290	+35,290	40.5

Note: N = 14,650. Observations are weighted by inverse household size to adjust for sampling probabilities. The values in column (2) are obtained by subtracting those in column (1) from those in column (1) of Table 1. A positive sign in column (2) represents a larger revenue or a smaller cost, and a negative sign represents a smaller revenue or a larger cost. The T values in column (3) are calculated assuming unequal variances. They are finite-sample corrected assuming that at least 35% of the immigrant target population in included in the sample.

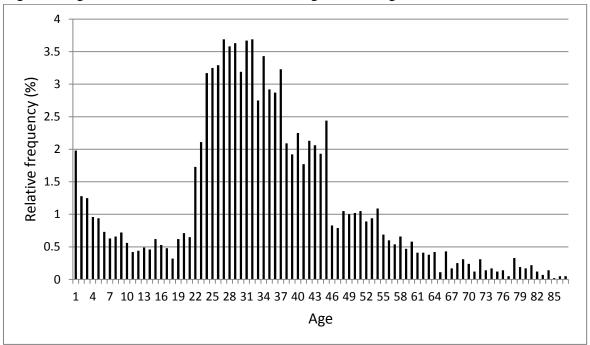
Table 4. Net fiscal contribution of 2007-2010 immigrants from EU14

	(1)	(2)	(3)
	Average amount	Contribution	T value of
	(kronor)	(kronor)	contribution
Direct taxes	41,914	-11,535	10.7
Payroll taxes	40,475	-8,466	12.6
Consumption taxes	36,326	-312	2.8
Study-loan repayments	85	-1,197	120
Other public revenue	42,668	0	_
<b>Total revenue</b>	161,469	-21,509	12.2
Sickness support	679	+1,406	26.9
Public pensions	4,266	+33,533	134
Parental leave support	1,951	+988	11.8
Unemployment support	1,167	+1,533	25.5
Early retirement	767	+3,602	57.7
Basic social assistance	721	+385	8.0
Housing support	132	+212	21.9
Study support	1,177	+1,449	27.9
Other individual transfers	1,789	+2,580	55.1
Total transfers	12,648	+45,687	153
Child care	10,434	-3,391	18.6
Schooling	7,471	+3,518	23.6
Hospital care	15,983	+10,499	159
Elderly care	1,526	+25,504	216
Disability care	885	+3,927	23.0
Other public spending	47,865	0	_
<b>Total spending</b>	84,164	+40,057	127
Net financial surplus	422	0	_
Sum	64,235	+64,235	34.9

Note: N = 17,474. Observations are weighted by inverse household size to adjust for sampling probabilities. The values in column (2) are obtained by subtracting those in column (1) from those in column (1) of Table 1. A positive sign in column (2) represents a larger revenue or a smaller cost, and a negative sign represents a smaller revenue or a larger cost. The T values in column (3) are calculated assuming unequal variances. They are finite-sample corrected assuming that at least 35% of the immigrant target population in included in the sample.

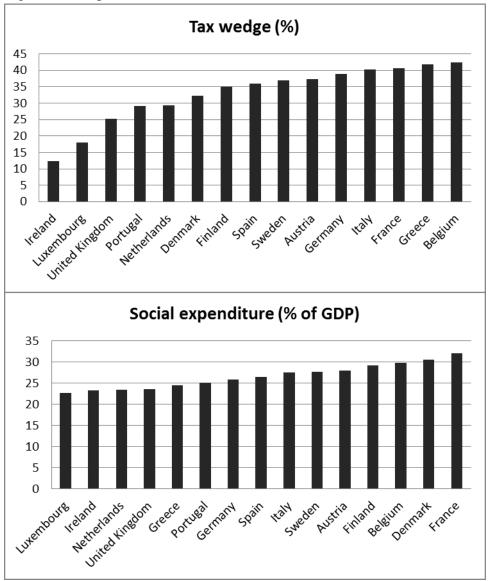
#### **Figures**

Figure 1. Age distribution of Romanian and Bulgarian immigrants and their children



Notes: N = 4,073. Observations are weighted by inverse household size to adjust for sampling probabilities.

Figure 2. Comparison of EU15 welfare sectors in 2011



Notes: Data source: stats.oecd.org. The tax wedge refers to a two earner married couple with two children; one adult earning 100% of the country average and the other 33%.