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An Outstanding Positioning of Migrants and Nationals: The Case of Luxembourg[1]

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Abstract

The economic integration of foreigners and their impact on the economic and public finances of the destination country are the subject of numerous debates and research projects. Our aim is to investigate the contribution of foreigners to public finances in Luxembourg. The intention is to find out whether migrants and nationals consume more in benefits than they contribute to public finances and the social security system, or whether they in fact contribute more than they consume. We present a quite unusual situation, where a small nation-state has incorporated not only the most important share of foreigners, but also an extremely performing immigration. Luxembourg has a longstanding tradition of attracting highly qualified foreigners and of transnational economic leaders since the end of 19th century. Currently, the share of highly qualified foreigners became more important than the share of highly qualified nationals. And more so, these highly qualified foreigners have higher educational levels than their national counterparts. Given an overwhelming majority of transnational economic leaders (70 to 80 percent) and a significant majority of extremely well educated foreigners, the traditional question of integration and assimilation might have become obsolete or reversed. In terms of the Chicago school or the model of Esser (2004), we will demonstrate that these foreigners position themselves on top of the national elite. A result of their quantitative and qualitative impact might be a reversal of the traditional assimilation model: transnationals and not nationals provide perhaps *the* reference model for assimilation.

Keywords

Economic positioning, Luxembourg, atypical migration, economic performance, integration, panel data

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1. Introduction

The debate surrounding the concepts of integration, inclusion and assimilation and, in a complementary fashion, the concepts of exclusion, non-integration and non-assimilation is not a new one. This issue is linked to that of the tension between an ethnically homogeneous nation state and one characterised by significant diversity resulting from immigration: too great a level of diversity risks calling into question the integration /integrity/ cohesion of a given nation state. On a theoretical scale ranging from complete homogeneity to complete diversity, the degree of diversity/homogeneity has been the subject of this long debate and varies from one state to the next.

The economic integration of foreigners and their impact on the economic and public finances of the destination country are the subject of numerous debates and research projects. Our aim is to investigate the contribution of foreigners to public finances in Luxembourg. The intention is to find out whether migrants and nationals consume more in benefits than they contribute to public finances and the social security system, or whether they in fact contribute more than they consume. In other words, what is the economic performance of nationals and migrants? Luxembourg is an interesting case for researchers in that it has experienced significant immigration of two kinds, poorly and highly qualified foreigners, for more than a century. Also, the corporatist welfare system with very generous levels of support (higher than those usual in Scandinavia) could function as a 'welfare magnet' (Borjas, 1999). In view of these specific features, we distinguish nationals and foreigners in terms of level of education and migration status (EU / EEA or non-EU / EEA[2]). Our approach will be focussed on finding out which groups have the best level of economic performance.

This contribution presents a quite unusual situation, where a small nation-state has incorporated not only the most important share of foreigners, but also an extremely performing immigration. Luxembourg has a longstanding tradition of attracting highly qualified foreigners and of transnational economic leaders since the end of 19th century. However, the share of highly qualified individuals has developed considerably over recent years; meanwhile the share of highly qualified foreigners became more important than the share of highly qualified nationals. And more so, these highly qualified foreigners have higher educational levels than their national counterparts. Given an overwhelming majority of transnational economic leaders (70 to 80 percent) and a significant majority of extremely well educated foreigners, the traditional question of integration and assimilation might have become obsolete or reversed. In terms of the Chicago school or the model of Esser (2004), we will demonstrate that these foreigners position themselves on top of the national elite. A result of their quantitative and qualitative impact might be a reversal of the traditional assimilation model: transnationals and not nationals provide perhaps *the* reference model for assimilation. In other words, the national elite might perhaps follow principles provided by transnationals. Within this contribution, we are unable to elaborate results regarding values and reference models. What we want to demonstrate is the *positioning of these highly or less qualified foreigners on top of the highly or less qualified nationals or the opposite* with regard to *wages*, to *contributions to public budgets* (to taxes and to social security insurances) and *consumptions of insurances and replacement income*. Thus we can compare the input and the outcome provided by the different groups. Results regarding these three elements are considered to be indicators of the economic performance of the different groups. A quite unique situation appears where foreigners are performing better than nationals – with the exception of a very small group of third country nationals.

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[2] The member states of the European Economic Area and Switzerland enjoy the same rights in terms of access to the labour market as EU citizens; for this reason, they are included in the "EU" category.

The present analysis is done in order to question an old standing theoretical hierarchy putting on top of the scale the national elite[3] followed by a national middle class and finally a national working class. On the very bottom of the scale the immigrants with working class background are those who, if they want to integrate into the system, have to assimilate to their national counterparts. The situation in Luxembourg might be different with regard to the upper and upper middle class as both groups of foreigners produce better results and position themselves on top of the equivalent group of nationals. Orientations of assimilation might change then. In the following, we begin by defining the concepts used and the theoretical approach in order to tackle the positioning of our five target groups together with the existing literature. Second, we present some major features of Luxembourg's immigration and show the outstanding situation of its active population. In a third step, we present the empirical results and address the positioning of the five groups giving an account of the economic performance of each group, via an analysis of wages, social contributions and consumptions of benefits and insurances. And finally we estimate the economic performance using an explanatory regression model.

2. The positioning of migrants with regard to the economic performance

2.1 The concept of "positioning"

According to Esser's (2004) approach, two elements compose a successful integration into a certain destination country: first of all the access to the country, in his terms the "*Systemintegration*". Here the analysis would tackle questions such as: What are the conditions of access to a certain country? What types of capital (economic, cultural, social and/or political) are necessary for admission? *Immigration policies* of EU member states provide *varying* answers for the non-Communitarians and *quite similar* for EU citizens, at least for those who enter another member state with a work contract. We will not tackle this part (cf. Hartmann-Hirsch, 2010).

Those who managed to have access to a certain country of destination - a system - find themselves faced with the challenges of their "*Sozialintegration*". Here *integration policies* might give an answer with basic features. Esser (2004) presented an operationalisation of the concepts by going back to Park (1950) and Gordon (1964) with their "stepwise integration", in particular for acculturation and positioning. Esser (op. cit) does not consider these to be "stepwise", but rather juxtaposed or co-existent. Our work is limited to the positioning of different groups of nationals and foreigners, in order to find the dominant groups within a given sub-system. The efforts to achieve integration should lead to a positive social integration, for example a good / high position on a certain scale inside a given system.

The final stage of social integration for Esser (op. cit) is *assimilation*, a term which is now considered politically incorrect, especially by NGOs. The latter see it as being orientated in a single direction, supporting the dominance of the values of the host country over those who arrive. The theoretical aim of such a normative concept is said to be to eradicate the characteristic traits of minorities/migrants in a host society in order to achieve the complete homogeneity of a nation state. The definition given by Park (1930: 281) would be considered legitimate even by NGOs by virtue of its *reciprocal* and *procedural* character: "*a process or processes by which people of diverse racial origins and different cultural heritages, occupying a common territory, achieve a cultural solidarity sufficient at least to sustain a national existence.*"

Despite this definition, the Chicago school researchers (Alba et Nee, 1997) measure the assimilation of a groups of immigrants to the 'core society' in terms of the occurrence of "middle-class cultural patterns of,

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[3] Using this concept, we have a broader understanding than many other elite researchers (Sklair, Sassen, Hartmann, etc.) as we include all those with a minimum degree of a BA/BSc.

largely, white Protestant, Anglo-Saxon origins", a type of "one directional acceptance of Anglo-American patterns" (Gordon, 1964: 127 - 128), with reciprocity being marginal or limited to certain less central domains (food, culture, etc.). In practice, "theoretical" reciprocity (Park) does not take account of the internal hierarchy of the systems in the 'core society' in the case of migrants. Thus, Esser (2004) states that there is no real alternative to assimilation, if the actor, the individual migrant, wants to succeed in finding a certain position in one of the essential systems, such as employment or education (Esser, op. cit). In the context of a system in which the nationals are those at the top of the scale, migrants must orientate themselves towards the national values; the reciprocity referred to by Park (1950) is then an illusion.

In the case of "*Sozialintegration*", it is the efforts of actors, using their capital, which determines their position within the system, resulting ultimately, in a good (assimilation) or bad (segmentation) kind of integration. We will find the positions of different groups of foreigners and nationals on a scale of wages, employment rates, contributions and consumptions to the public budget. This position is determined in our analyses by economic capital, i.e. wage and other market revenues, but also initially by cultural capital (above all institutional, but also embodied in Bordieu's sense[4]), the educational level acquired in developed, transition or developing countries (Hoffmann-Nowotny, 2001; Iredale, 2001; Weiss, 2005, Schou, 2005). In this case, we are faced with foreigners positioned above nationals - an "Überschichtung" by the foreigners. Researchers rarely highlight such a phenomenon, it goes unmentioned even in the research done on highly qualified immigrants; this is, as we will demonstrate, the case in Luxembourg (Hartmann-Hirsch, 2008) and in Switzerland (e.g. Hoffmann-Nowotny, 2001; Bolzman, 2007).

2.2 Findings with regard to the economic performance

Within the framework of "*Sozialintegration"*, we will examine here economic performance. For this part of the analysis, "Systemintegration" can be considered as having been achieved. Now, we are interested in efforts and, more than efforts, in *results*, and the role played by both systems in different schemes (pension schemes, unemployment schemes, etc.), which are all linked to employment. The positioning can be done on the basis of different parameters, for example the balance of **contributions**, i.e. the share in employment and in social insurance contributions and the public finances, and **consumption**, i.e. of insurance, transfer payments and benefits in the case of non-participation in the labour market (retirement, benefiting of social assistance, unemployment).

As the majority of studies on migration deal with working class migration, there are many publications on consumption and even more on over-consumption, but few on the **economic contributions of migrants**, and even fewer on the possible over-contribution on their part.

2.2.1 Do foreigners perform negatively or positively?

Let us examine first of all those works, which consider migrants as a burden on the host country. Borjas (1990, 2000) and Chiswick and Sullivan (2005) demonstrate increased expenditure for immigrants, as in the United States they are more likely to receive public assistance – and that in a liberal welfare system, which is known for the modesty of its provisions, with "equity amongst the poor" (Esping Andersen, 1990: 100). Hunger (2000) highlights the 'dumping' effects produced by workers from Eastern European countries on the low skilled workers who are already in the country (both foreigners and nationals). Posting of workers is a solution in the construction field where, usually, work cannot be moved to a low-wage country. He sees a cutback, that is, a move away from the corporatist German welfare system to a more liberal system.

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[4] We will not address here the origins of the performance of the five groups but simply the outcome, thus not addressing the question of the interaction between the two types of cultural capital.

In contrast to the findings of Borjas, Lalonde and Topel (1991) demonstrate that the migrants are found at the bottom of the wage scale and that they are responsible for themselves and thus do not harm the "community". Yet others have shown the positive contributions of foreigners to social insurance systems. Schou (2006) demonstrates that social insurance systems without immigration have long-term deficits. He differentiates between immigrants from developed countries and those from less developed countries. The positive effects of the former are evident. However, he demonstrates the positive effects of immigrants from less developed countries, because they are less inclined to leave and are more numerous. However, continuing immigration will not save the welfare state; better integration is what is required. Büchel and Frick (2004 and 2005) observe better performance by foreigners in Great Britain than by those in Germany, which they explain in terms of the different welfare systems - corporatist and liberal. Foreigners in Britain are said to be more independent of the state and as a result they perform better than those in Germany. In the corporatist system, the state is more inclined to "take into charge"; the citizens tend to develop attitudes of "assistés" (relying on the State), while the liberal model offers less and demands a greater level of responsibility from its citizens (Esping-Andersen, 1990). Others highlight the fact that foreigners fear repatriation, and thus hesitate to claim social assistant and thus stay below the level of their eligibility (Bolzman, 2007; Ametepé and Hartmann-Hirsch, 2008).

Often, consumption is considered without looking at the contributions of foreigners – and nationals. Bhattarai and Whalley (1997) as well as Weber and Straubhaar (1996) for Switzerland, and Gustafsson and Österberg (2001) for Sweden, have highlighted the net contributions of foreigners, even when they are recipients of public assistance (which is the case in Sweden). Some have refined their analyses in terms of the types of foreigners. Pedersen (2005) and Schou (2006) compare foreigners from developed (OECD) countries with those from less developed countries. Pedersen demonstrates a lack of integration of foreigners from less developed countries, refugees and new arrivals who have come within the framework of family reunion, with a high dependence on the state (unemployment benefits), for both the 1st and 2nd generations (see also Bolzman, 2007). Bengtson et al. (2005) compare the contributions of foreigners in various historical periods with net gain for the community during the 1960s and 1970s, while from the 1980s they were more a burden on the Swedish state. Finally, Bengtsson et. al. (2005: 49, Pedersen, 2005, idem) say with justification that "the results of international studies in this field point in differing directions, which is probably due to the fact that these studies were carried out in different countries with different labour markets regimes and welfare system at different points in time with different labour market situation".

In the majority of comparative international studies, Luxembourg does not appear, although it is heavily transnationalised and has a significant and highly-performing group of foreigners. This case is interesting in that it overturns the established theories of integration and assimilation. Büchel and Frick (2005) include Luxembourg in their comparison and remark that its foreigners perform better than those of other countries. In Luxembourg, a public debate (press, parliament) has been taking place for a number of years now, highlighting the net gains for the pension-disability, health and care insurances from the contributions of foreigners and, to an even greater extent, cross-border commuters, who are younger, better educated and have higher employment rates than the residents or nationals. (Allegrezza et al, 2005; Zanardelli, 2004). The OECD (2008) draws attention to the fact that this "over-contribution" must end at the moment of the mass retirement of these two groups of foreigners in several years. Hartmann-Hirsch and Ametepé (2009) demonstrate that Luxembourg's system of social security is "outstanding" in terms of its evolution over the last twenty years, with expansion and improvement in insurance provision and benefits, while all other Member States have stabilised or slowed any expansion and/or implemented significant cutbacks. How can this development be explained? The massive presence of foreigners in the private sector, their input, their performance in employment terms, their age and their level of education are the factors which allowed for the enlargement of the welfare system and guarantee at present the durability of it. Ametepé and Hartmann-Hirsch (2008) analyse eligibility for and take-up of social assistance, differentiating between nationals and foreigners in terms of level of qualification and migration

status (EU or non-EU). Only the less qualified non-EU foreigners, the smallest group of residents (Table 3) have a higher level of eligibility and thus of take-up. In contrast it is not necessarily the 'migrant' factor, which is decisive, but rather other factors such as single parenthood etc.

2.2.2. An exceptional immigration

Over the past 15 years, Luxembourg has found itself at the top of the EU in terms of economic performance and job creation.[5]. It is the country in the OECD and EU with the highest level of foreigners, both as a proportion of its resident population (42 percent) and as a proportion of its domestic labour market (66 percent), and to an even greater extent in the competitive sector (73 percent)[6].

Luxembourg – just like Switzerland[7] - has experienced, alongside a significant working class immigration, a highly qualified immigration and furthermore an important share of foreign economic decision makers. And this has been the case since the end of the 19th century with the arrival of Prussian engineers (and capital) when the steel industry took off. This foreign elite was revived after the steel industry crisis of the 1970s, when foreign managers established the financial sector (von Kunitzki, 2007). The financial sector has taken the place of the declining steel industry as the major taxpayer.

Like many member states, Luxembourg also has extensive experience of working class immigration. Over two decades, Portuguese workers, the most numerous group, arrived in Luxembourg as low skilled non-EU citizens thanks to immigration procedures facilitated by the authorities. Currently, 85 percent of foreigners are EU citizens. Among the 15 percent of non-EU citizens are found some highly qualified and managerial foreigners from the Northern hemisphere: Japanese, Canadians etc. (Hartmann-Hirsch, 2008), which means that the proportion of low-skilled non-EU citizens is very small (3.8 percent of the total population; cf. Table 3) and presents little risk of weighing on the public finances – as opposed to the observation of certain authors on immigration in general (Borjas and Hilton, 1996).

In contrast to its neighbouring countries, Luxembourg never ordered an end to economic immigration following the steel crisis of the 1970s. The neighbouring countries saw a major inflow of 'family reunification' migration, once economic immigration was suspended. These "reunified" people arrive *without* employment contracts and present a more significant risk in terms of underqualification, poverty and dependence on public funds (Bolzman, 2007). Luxembourg was able to avoid the large-scale entry of these potential foreigners, who were in danger of being dependent, thanks to the EU legislation discussed above (Hartmann-Hirsch, 2010). It is with regard to economically inactive EU immigrants – and a fortiori non-EU immigrants – that the *national* authorities have a say, they continue to enjoy full national sovereignty - even if some entry conditions are defined at the *supranational* level (Directives 1990/364 and 2004/38; Hartmann-Hirsch, 2007).

Figure 1 shows the composition of the labour market and it appears that it has changed: the portion of Luxembourgers is falling and that of cross-border commuters is rising[8]. Thus, the foreigners, immigrants (cf. Box 1 below) and cross-border commuters have a considerable impact on the economy and the remarkable performance of Luxembourg's economy is thanks to them. This situation could imply a reversal of the usual hierarchical relations between nationals and migrants, with a group of highly qualified foreigners and foreign managers positioned above the national elite. Moreover, the foreigners and cross-border commuters being, on average, younger than the nationals, play a larger role in the labour

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[5] Cf. Joint Reports: http://ec.europa.eu/social/main.jsp?catId=757&langId=en.

[6] www.Statec.lu, 2006

[7] In *Switzerland*, for example, the German political refugees of 1848 positioned themselves above the Germanic Swiss elite: Hoffmann-Nowotny, 2001.

[8] Plan national de réforme, 2008, p. 43

market and thus contribute more to social security than they consume (Hartmann-Hirsch, 2010; Hartmann-Hirsch and Amétépé, 2009). Given the large share of economic immigrants - and consequently the small share of family reunion (OECD, 2009: 16) -, foreigners present higher employment rates than nationals, be it all employees, elderly or female employees (Plan national de réforme, 2008: 43s).

Box 1 - The concepts used and definition of groups of the resident population targeted

Immigrants, foreigners and nationals - concepts
We consider a foreigner a *resident of Luxembourg who does not detain Luxembourgish citizenship* whether s/he is native or foreign born. Hence a foreign person is either an immigrant or a native-born foreigner. Those who have dual nationalities including the Luxembourgish are registered as Luxembourgish *only* within administrative data sets; the second nationality is not informed any more. Portuguese children born here or fully educated in Luxembourg very often apply for naturalization, once they are aged 18. Thus administrative data underestimate the migration background. In the public debate, the term 'immigrant' is nearly exclusively used. Legal texts use the term "étranger" (foreigner). The recent immigration law (29.8.2008) distinguishes clearly between 'free movement' (EU citizens) and immigrants (third country nationals). Throughout this paper, we use the terms 'foreigners' or 'immigrants' in order to design those residents without Luxembourgish citizenship,- whether EU or non-EU, whether short or long term immigrants, whether foreign or native born - in accordance to Luxembourgish customs.

Defining the groups of nationals and immigrants
In this study, we distinguish according to the migration status (EU/EEA and non-EU/EEA nationals) and the level of education. The level of education is considered as a proxy for professional status and salary. We use five groups in our analysis: 1. Highly qualified EU and non-EU immigrants. 2. Less qualified EU immigrants. 3. Less qualified non-EU immigrants. 4. Highly qualified nationals. 5. Less qualified nationals. The cut-off for defining the level of education is BAC+3. This is based on the OECD definition. The "less qualified" groups especially are very heterogeneous and include people with no education as well as people with two years of university education. To combine EU/EEA and non-EU highly qualified immigrants in *one* group is legitimated by the privileged access to the labour market for the highly skilled Third country nationals and by their low frequencies.

Figure 1 - Occupied people by country of origin in 1995 and 2007

Source: OCDE, 2008: p. 27

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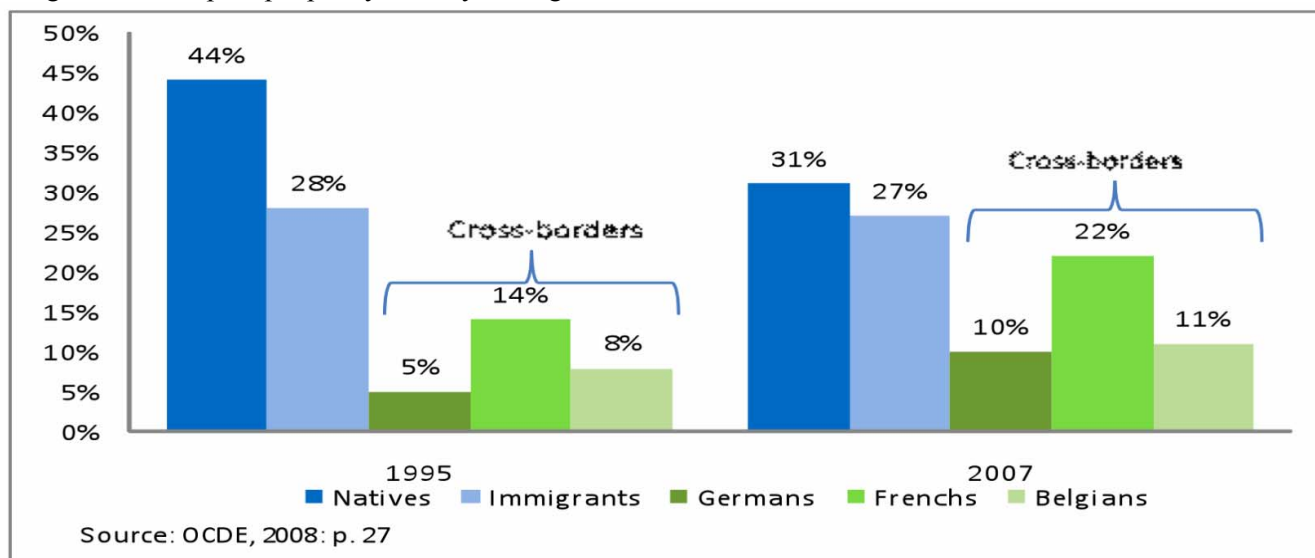
Since the 1950s, Luxembourg has hosted many international officials with high salaries: they represent 4.3 percent of the national labour market and 5 percent of the resident population (Statec: www.statec.lu, 2008). The economic elite, originating from the Northern hemisphere, consists of two-thirds of foreigners (IGSS data). And 79 percent of managers in the banking sector are also foreign (Fehlen and Pigéron-Piroth, 2009). Pauly (no publishing year) presents figures, which – 30 years ago – already showed this foreign economic elite, less numerous but already over-represented.

The situation of Luxembourg is even more outstanding when examined in terms of an international comparison (Tables 1 and 2). According to the OECD, countries of mass immigration normally have a modest proportion of highly qualified foreigners. There is more chance of having a large proportion of highly qualified foreigners in countries with small migratory populations and countries which have only recently experienced immigration (Ireland, Norway etc.), as these latter countries immediately adopted selective policies and the highly qualified foreigners did not add to pre-existing mass immigration (OECD, 2008). Luxembourg like many other developed countries (OECD: SOPEMI, last issues) launched selective immigration policies in the 1990s privileging work contracts with wages of more than four times the minimum wage (OECD, 2003: 110).

Table 1- Contribution of recent immigrants to employment in highly skilled occupations, 2006 (LFS)

	Employed immigrants as percent of total employment	Persons in high skilled jobs (HSJ)	
		Immigrants in HSJ as percent of all persons in HSJ	Immigrants in HSJ arrived in previous 10 years as a percent of new entrants in HSJ
Luxembourg	*43.8	*42.9	*59.0
Switzerland	24.4	20.9	30.4
Ireland	13.7	13.7	23.5
Germany	13.3	9.0	5.9
France	11.2	9.4	5.9
Belgium	11.1	9.8	10.6

Source: OECD, 2009: 16. *: highest rate of all OECD countries

Table 2 - Trends in highly qualified immigration (HQI)

	HQI as a percent of all employed immigrants having arrived in previous 10 years		
	1995	2006	2006/1995
Luxembourg	24.6	48.7	2.0
Switzerland	--	45.2	--
Ireland	*56.1	*49.2	0.9
Germany	--	29.1	--
France	31.7	36.9	1.2
Belgium	45.3	43.3	1.0

OECD, 2009: 15; *: highest rate of all OECD countries.

Two major points emerge from this brief survey of immigration in Luxembourg and the place of foreigners in the national economy:

• The proportion of less qualified foreigners has not increased, whilst the proportion of highly qualified foreigners and foreign managers has strongly increased and in fact doubled over the last ten years, despite the previous mass integration. Despite the selective policies launched by all developed countries, "the share of the highly qualified among employed recent immigrants has not increased in

anywhere near the same proportions […] Only in Austria, Luxembourg and Norway does one see a much larger increase." (OECD, 2009: 15).

• Underqualification of EU and non-EU citizens is a marginal phenomenon in Luxembourg, in contrast to the neighbouring countries (OECD, 2009: 13). There is good reason to believe that current immigration is not only significant in terms of numbers but is also a main contributor to the economic performance of this small nation-state. This appears clearly with national and international data. The economy, including management, and the society are the most transnationalised within the OECD.

3. Data and methodology

3.1 The panel data

The main data source for this research is the most recent waves (from 2002 to 2006) of the *PSELL3/EU-SILC* (Panel Socio-Economic Living in Luxembourg/European Union-Statistics on Income and Living Conditions), which included, in 2002, 3.500 households and 10.000 individuals; 8.000 of them aged 16 and more. The database provides detailed information on the demographic and socioeconomic characteristics such as age, sex, family status, country of born, duration of stay in Luxembourg, nationality, level of education, etc. The data files included also total income, employment income, self-employment income, capital income, income tax, social contributions, social welfare benefits, unemployment benefit, pension, etc. Here we focus on persons, who are active. Then the statistical unit of our analysis is the individual present in the five waves of the panel (3500 individuals) aged between 25 and 75 and living in households headed by persons who are economically active i.e aged between 25 and 64. The income attributed to each individual is composed of their individual income (revenue from professional activity, pensions, sickness / maternity / unemployment benefits) and a portion of the income received/paid at the household level (family benefits, social assistance, obligatory contributions). For the calculation of this household portion, we applied the OECD equivalence scale to take into account the composition of the household via the consumption unit (CU). We thus divided all household income by the CU of each household[9].

3.2 Methodology: A tax-benefit analysis of contributions and consumption

Our empirical analyses explore the aforementioned questions estimating fixed-effects and random-effects regression models that allow us to examine the economic performance of each resident. Büchel and Frick (2004; 2005) have recently developed an approach, analysing the economic performance of nationals and foreigners in some European countries using panel data not in terms of social integration with regard to individual efforts and results but rather according to migration policies of different countries. This research demonstrated the method we use and compared income tax and social contributions paid by the residents with social welfare benefits and unemployment insurance. However, our procedure goes beyond this approach by taking into account the descriptive analyses the age bands in an attempt to identify the effect of lifecycle. Our work considers only financial transfers (insurance, income and benefits) and ignores benefits in kind provided by social services (free of charge or cofinanced by the State).

First, we present the different sources of gross revenue received by individuals. Later on, we will refine these revenues by the amounts of actually received income. Then, we measure economic performance using two indicators. The first is the primary income (respectively each income) or the '***pre-government income***' of *one* of the fifteen groups (e.g. highly qualified nationals aged 25-44,) divided by the whole

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[9] The CU of each household corresponds to 1 for the head of a household, 0.5 for an adult aged 14 and over and 0.3 for children under the age of 14

primary income of the five groups aged 25-44[10] (e.g. highly qualified nationals aged 25-44, highly qualified foreigners aged 25-44, less qualified nationals aged 25-44, less qualified foreigners-EU aged 25-44 and less qualified foreigners-n-EU aged 25-44). The pre-government income or primary income components are the wages, the income from self-employment, the private income and others. The second indicator relies to the '*post-government income*', which is determined by the pre-government plus the non-market income (public pension, unemployment income, social assistance, etc.) minus the taxes and the social security contribution. This last indicator is obtained by dividing the primary income or the pre-government income of *one* of the fifteen groups (e.g highly qualified nationals aged 25-44,) by the post-government income of this group (e.g. highly qualified nationals aged 25-44). This is the decomposition of the post-government income. In Luxembourg, a sandwich effect can be observed with foreigners on the top and on the bottom of the scale and nationals in a middle position.

To measure the economic performance of each group of residents according to their migration status, we estimate an explanatory model and the dependent variable is the logarithm of relative primary income, to find out the determinants of the level of performance of the different groups. To control for a possible heterogeneity of the foreigners, we estimate the regression models controlling for a range of socioeconomic characteristics of head of household (sex, age, job experience, duration of stay) and some households' characteristics (size, number of children, number of occupied person, area, housing status, family typology, etc.).

4. Empirical results

4.1 Less qualified foreigners (UE) perform as well as highly qualified foreigners (UE)

According to the EU-SILC/PSELL socio-economic panel, we find a significant proportion of highly qualified foreigners, which increased significantly over the last 5 years at the expense of less qualified nationals (Table 3; also Tables 1 and 2). Furthermore, these highly qualified foreigners have a higher level of education than the equivalent group of nationals.

Table 3 - Proportions of economically active nationals and foreigners aged 25 to 64 by level of education

Luxembourgian and foreigners groups	Year	
	2002	2006
Highly qualified nationals	9.5	9.8
Highly qualified foreigners: EU/non-EU	10.6	13.0
Less qualified nationals	48.2	44.5
Less qualified foreigners EU[11]	27.9	28.9
Less qualified foreigners non-EU	3.7	3.8
Total	100.0	100.0

Source: PSELL3/EU-SILC, waves 2002 and 2006, authors' calculations

The data from the socio-economic panel (Table 4 cf. appendix 1 below) confirm a higher proportion of foreigners than nationals participating in the labour market – with the exception of the less qualified Third Country nationals. And that this is also the case for the elderly active foreigners[12]. We recognize other

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[10] This allows us to meet to some extent to the challenge of lifecycles.

[11] A differentiation is made between EU and non-EU only for less qualified immigrants, as the latter are subject to more rigorous conditions since the establishment of the selective policies (1990s/2000s).

[12] Administrative data produced the same result: Plan national de réforme 2008: 43s.

well-known differences: elderly highly qualified workers retire later, whether nationals or foreigners (cf. higher proportion of salary declarations for both groups). We also see a higher proportion of economically active persons among foreigners than nationals (less qualified and highly qualified). Correspondingly, the highly qualified foreigners who declare the receipt of a pension are less numerous than the nationals. This is also the case for the other groups of foreigners as compared to the nationals at the equivalent level, although these differences are less pronounced (Table 4).

Now, we go on to refine these results with the amounts actually received (Table 5 cf. appendix 2 below). We calculate the portion of primary income of each skill-age immigrant group in relation to the primary income of the entire corresponding age group, regardless of skill level and immigrant origin. The results show that in general nationals earn more than foreigners and that among the more educated, older persons receive better salaries, while the reverse is true among the less qualified and unqualified

When one then considers the level of education one finds that the market income of highly qualified nationals between 25-44 years old is 92 percent higher than the mean income of the residents aged between 25-44 years old. Furthermore, as well the primary income of highly qualified foreigners being only slightly below that of highly qualified nationals (Table 3). This leads us to believe that their price is more advantageous for the economy given their overall higher educational achievements and probably a greater input.

Now we decompose the post-government income, and it appears that the pre-government income of highly qualified nationals between 25-44 years old is 29 percent higher than their post-government income. In addition, for the two groups of nationals (highly and less qualified) and the two groups of foreigners (highly qualified EU and non-EU and less qualified EU), the primary income is significantly higher than the disposable income, which indicates that they contribute more than they consume (Table 6 cf. appendix 3 below). And although this is essentially also the case for younger people (25-59), it can be seen that the primary income of highly qualified foreigners aged 60-75 remains still close to their disposable income, which shows that they continue to contribute to a great extent. This confirms their tendency to remain in the labour market for a long and longer time than nationals (declaration of a salary). In other words, the 'early exit' attitude tends to be taken by nationals rather than by foreigners (Blossfeld et al., 2005). With regard to the receipt of benefits linked to having one or more children, the number of children born to foreign women has exceeded, for several years, the number of children born to Luxembourgish women (STATEC, statistical yearbooks). Thus, foreigners more often receive such benefits (Table 6). The amounts received, i.e. the shares in the breakdown, are above those for nationals (Tables 5 and 6). It is highly qualified people who most often receive these benefits, even more so those in the highest age bracket. In fact, due to their having studied for longer periods, they have children later, and this applies even more to foreigners than to nationals, as the latter have higher degrees and thus study for longer than the nationals. The child allowance can be seen as a positive indicator of the durability of welfare systems, and thus as a long-term contribution to the sustainability of our welfare systems. The receipt of these benefits can also be seen as a burden on the public finances. However because in developed societies fertility is generally low and is always cited when the survival of our welfare system is in question, we consider this type of benefit as being part of the positive performances.

4.2 Lower economic performance by very small numbers of less qualified non-EU foreigners

Overall, it is the group of less qualified non-EU foreigners who perform poorly in economic terms (Tables 4 to 6). It should be recalled that this is the smallest of the five groups (3.7 percent) and that the group is weak in terms of independence from public assistance. It has the lowest rate of labour market participation of the five groups and the highest levels of receipt of RMG and other benefits such as unemployment benefit and early retirement benefit. Yet, while receiving these benefits and payments, according to the

findings of Borjas and Hilton (1996) certain members of this group (the youngest) still have a level close to independence (with 88 percent, cf. 1st column of Table 6).

As for unemployment/early retirement benefits, the three groups of foreigners are more often in receipt of these (Tables 4, 5 and 6), according to the findings of Borjas and contrary to the findings of Bolzman (2007). In this regard, it is necessary to refine the results to take account of the fact that national civil servants (16 percent of the panel) and international civil servants (4 percent of the panel) are not subject to unemployment. However, the amounts paid to highly qualified nationals are, on average, higher than those paid to highly qualified foreigners, which goes together with the higher, on average, salaries of nationals; the inverse is true for EU less qualified foreigners compared to less qualified nationals. We note again the absence of less qualified non-EU foreigners in the last age bracket (Tables 6 and 4). The less qualified non-EU foreigners are not numerous in the 60 - 75 age bracket. We have two hypotheses concerning this: among new arrivals, there are fewer and fewer less qualified non-EU foreigners due to the selective policy (Tables 1 and 2). Also, the non-EU citizens living in poverty or at risk of poverty perhaps opt more often for naturalisation, thus appearing among the nationals. Thus, one finds a group of very young non-EU foreigners.

However, for the less qualified non-EU foreigners there are obstacles to integration into the existing unemployment system – due to the legal framework: those with their first two work permits (limited in terms of employers and economic sectors) lose their unemployment coverage once their permit expires[13]. They probably benefit from it less than EU citizens; however given this excluding stipulation they are more often users of social assistance, but only once they can prove a five years residence (Amétépé and Hartmann-Hirsch, 2008). It is, in fact, only the less qualified non-EU foreigners who perform less well and consume more than they contribute. In contrast, even this small, weaker group is still close to independence from the state, with only a portion of its members benefiting from redistributive measures. And Büchel and Frick (2005) ask whether this lower level of performance is not due to the obstacles to access to employment, which non-EU citizens have to overcome.

4.3 The factors influencing economic performance: migration status or the level of education?

The descriptive analyses suggest that the economic performance of less qualified non-EU foreigners is weak in comparison with the average economic performance of other persons. However, this finding does not take into account the other characteristics of foreigners, for example age (younger), marital status (more are married). Thus, to obtain more significant results concerning economic performance, we carried out an econometric modelling to assess the determining factors. As is known, the panel data add a temporal and an individual dimension to the assessment. This dual dimension allows us to take into account the impact of non-observable characteristics of individuals' behaviours, as these remain stable over time. These data provide a heterogeneity of individual characteristics, which increases the variability of the observations and thus the precision of the estimates, but may also provide a heterogeneity of behaviours, which needs to be modelled correctly. If one ignores this heterogeneity, this could lead to a bias in the estimate.

4.3.1 The empirical approach to evaluate the economic performance

In the model that we are trying to estimate, it is thus necessary to take into account the individual and temporal specificities by introducing specific effects (fixed or random) for individuals and periods, which constitute the coefficients that are being calculated. These effects – fixed or random – are either correlated or not with the explanatory variables. The underlying hypothesis is the absence of correlation between the

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[13] Cf. Act of 28th March 1972, which remained in force for the 2007 wave of the panel. This Act was replaced by the Act of 29th August 2008.

specific effects and the explanatory variables. To verify this, we have developed a 'fixed effects' model and a random model, and tested the correlation of these effects with the explanatory variables. This test compares the estimators of the two models. If these estimators are similar, one can reasonably conclude that all the results are convergent and thus accept the hypothesis of the strict exogeneity of regressors and the model of fixed effects providing convergent and unbiased estimators. If on the other hand the results are very different, the hypothesis of the absences of correlation will be rejected and other models will be used, in particular instrumental variable methods[14].

In this study, we thus estimate the logarithm of primary income using various individual characteristics, duration of the job etc. In this model, the specific individual effects represent, among other aspects, the personal capacities of the individual (learning abilities, dynamism, observed suitability for work), which are often not included in studies, as they cannot be quantified. It is thus legitimate to ask about the hypothesis of the absence of correlation between these specific effects and certain explanatory variables such as initial training or length of service. There are persons with excellent learning skills, who in most of the cases have longer studies (Sevestre, 2002). Thus, what we did first, was to verify whether these effects exist, using the Breusch-Pagan test. This test concluded that these effects do exist; we then tested the hypothesis of the absence of correlation between the explanatory variables and these effects using the Hausman test. The result led us to conclude that such a correlation exists. This led to the use of the instrumental variable methods, in particular the Hausman Taylor estimator (HT). Finally, we carried out a Hausman test between the HT and the model of the fixed effects to verify the absence of specific effects. The results indicate that there was a lack of correlation. The HT model thus performs best and we compared the results to those of the random model.

We created two models; the first used separately the variables 'nationality' and 'duration of education', in order to take into account the effects of each. In model 2, we used the two variables in a combined way. The scope of this explanatory part is greater than that of the descriptive part. As the models apply solely to professional income, the sample is restricted to active persons and thus pensioners are excluded. Also, the active persons who have no professional income are also excluded. Only the significant variables are shown in the tables; the others are listed below the table.

Table 7 shows that the economic performance of EU foreigners is not different from that of nationals, either in the GLS (Generalized least squares) model or the HT model, even if the coefficient is higher. Also, the coefficient of non-EU foreigners, which was significant in the GLS model and indicated a reduction in their performance, is greater and is not significant in the improved HT estimation. Taking into account these results, one can ask whether migration status does not need to be considered as being not correlated with individual effects. Let us meanwhile look at the impact of level of education. This variable is supposed to be linked to unobservable individual effects and the HT estimator allows unbiased coefficients to be obtained.

The results show that the duration of education is significant in the HT estimator. An extra year of study increased by 11 percent the primary income, as against 6 percent in the GLS model. Investment in education is thus highly profitable in Luxembourg; de facto, dequalification is a nearly inexistent problem in Luxembourg (OCDE, 2009: 13). Thus, economic performance is more linked to the level of education than it is to migration status. Now, what is the relationship between migration status and level of education? The results are informative and there is no difference between highly qualified nationals and highly qualified foreigners (model 2). However, the economic performance of less qualified non-EU foreigners, whose income is reduced by 74 percent in comparison with that of highly qualified nationals, is very weak, in fact weaker than that of nationals with an equivalent level.

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[14] For specifications of the base model in terms of the panel data and explanations of specific effects, see Baltagi (2008) and Sevestre (2002).

Table 7 - Primary income in Luxembourg 2002-2006: results of GLS (generalised least squares) and HT (Hausman-Taylor) estimators

Variables	Model 1		Model 2	
	GLS	HT	GLS	HT
Nationals (ref.)				
EU foreigners	-0,0217 (0,034)	0,073 (0,043)		
Non-EU foreigners	-0,267** (0,102)	-0,164 (0,115)		
HQNs: highly qualified nationals (ref)				
EU and non-EU HQIs: highly qualified foreigners			0,077 (0,068)	0,094 (0,082)
LQMs : less qualified nationals			-0,274*** (0,066)	-0,413*** (0,126)
EU LQIs: less qualified foreigners			-0,442*** (0,072)	-0,559*** (0,135)
Non-EU LQMs: less qualified foreigners			-0,692*** (0,134)	-0,772*** (0,178)
Women (ref.)				
Men	0,527*** (0.035)	0,554*** (0.047)	0,523*** (0.035)	0,630** (0.046)
Age	0,058** (0,018)	0,021 (0,031)	0,056** (0,018)	-0,064* (0,029)
Age²	-0,00009 (0,0002°)	-0,0005 (0,0002)	-0,00003 (0,002)	-0,0004 (0,002)
Couple with children (ref.)				
Couple without children	0,09** (0,034)	0,096** (0,036)	0,098*** (0,034)	0,115*** (0,035)
Single parents	0,093 (0,062)	0,039 (0,079)	0,103 (0,062)	0,084 (0,075)
Single	0124 (0,064)	0,059 (0,084)	0,145* (0,065)	0,148 (0,078)
Other	0,073 (0,063)	0,008 (0,078)	0,077 (0,063)	-0,064 (0,076
Employed/self-employed (ref.)				
Unemployed	-2,094*** (0,082)	-1,958*** (0,083)	-2,089*** (0,082)	-1,965*** (0,080)
Not in labour market	-2,284*** (0,058)	-1,952*** (0,070)	-2,298*** (0,059)	-1,953*** (0,068)
Number of adults in work	-0,054*** (0,016)	-0,004 (0,017)	-0,055*** (0,016)	-0,013 (0,017)
Other regions (ref.)				
South	-0,115** (0,037)	-0,072 (0,050)	-0,112** (0,037)	-0,127** (0,044)

*p<0.05, **p<0.01, ***p<0.001

Table 7 continues in the next page

Table 7 - (continued). Primary income in Luxembourg 2002-2006: results of GLS (generalised least squares) and HT (Hausman-Taylor) estimators

Variables	Model 1		Model 2	
	GLS	HT	GLS	HT
2003 (ref.)				
2004	-0,018	0,060*	-0,022	0,016
	(0,017)	(0,023)	(0,017)	(0,022)
2005	-0,048*	0,116**	-0,056**	0,023
	(0,019)	(0,040)	(0,019)	(0,036)
2006	-0,090***	0,160**	-0,103***	0,017
	(0,023)	(0,059)	(0,023)	(0,053)
2007	-0,137***	0,192*	-0,153***	0,004
	(0,027)	(0,077)	(0,027)	(0,069)
Number of years of education	0,042***	0,132**	-	-
	(0,004)	(0,023)		
Year of start of work	0,044***	-0,038*	0,05***	0,014
	(0,005)	(0,019)	(0,005)	(0,017)
Professional experience	0,04***	0,014	0,042***	0,015
	(0,007)	(0,008)	(0,007)	(0,009)
Professional experience ²	-0,0006***	-	-0,0006***	-0,0004*
	(0,0001)	0,0003***	(0,0001)	(0,0002)
Constant	-91,190***	73,305	-102,476*	-30,76
	(10,696)	(39,242)	(10,857)	(34,520)
Number of observations/groups	8015/1603	8015/1603	8015/1603	8015/1603
Breusch-Pagan test	$\chi^2(1)=6541,$		$\chi^2(1)=6586,$	
Hausman test		$\chi^2(14)=16,$		$\chi^2(18)=32,$

*p<0.05, **p<0.01, ***p<0.001
Source: EU-SILC/PSELL3 waves 2002-2006, authors' calculations
The marital status, number of children and degree of urbanisation variables were also included in the model but are not shown here.

5. Conclusion

Developed countries are all seeking foreign brains at the international level and all block easy access to the less qualified (OCDE-SOPEMI, 2008). This wish to control immigration is an essential part of national sovereignty and national employment policies focusing on the protection of its own unemployed; thus, the economic performance of foreigners is at the heart of policy issues in developed countries. Politicians and social scientists in both, Europe and the US, focus on these issues.

For EU member states, the national sovereignty with regard to immigration policies applies however only to non-EU citizens; for EU citizens, the member states have since long time shifted these competences to the supranational level. Furthermore, highly skilled Third Country nationals enjoy a privileged access to EU-member states (EU directive 2009/50). Thus authorities can filter immigration only with regard to low skilled arrivals (Hartmann-Hirsch, 2010) and it is precisely this group, which, according to our results, performs weakly. For the rest, Luxembourg provides an outstanding situation with a highly performing immigration.

The contributions of foreigners are large – larger than those of nationals –, while they do not take out as much as nationals. This can be explained by their profile: higher levels of education than those of the equivalent nationals, a higher general employment rate, hence modest consumption of benefits (RMG,

unemployment benefit, pensions) with exception of family benefits; this however has a long-term positive effect on the sustainability of the welfare system. Nonetheless, a high level of heterogeneity is seen, depending on the educational level and the migration status: the small group of less qualified non-EU foreigners depends to a greater extent on the state than any other group. For nationals, the performance of highly qualified persons is similar to that of foreigners of the same level. It should be noted that the institutional capital of the latter is higher and that their salaries are more or less the same; they thus make a valuable less expensive contribution to companies.

The performance of foreigners, with the exception of that of less qualified non-EU foreigners, is not dependent solely on personal characteristics such as age, sex and family composition. Other things being equal, and as is only logical, residents with a level of education below BAC+3 perform less well economically than highly qualified residents. However, among these less qualified residents the divide is considerable with regard to the small group of non-EU residents. For the latter, dependence on unemployment benefit and social assistance can be seen together with a lack of salary – overall, a less good economic performance and a greater dependence on public assistance, which might be explained by more rigorous and excluding conditions for the access to the labour market, which concerned them previously. Several studies, cited in this paper, have obtained similar results underlining the better performance of the better qualified. The unique feature of our study, which combined migration status with level of education, produced a result which highlights a negative performance only by the small group of non-EU foreigners – according to some studies which declare foreigners in general to be less performing. In Luxembourg, the level of education has a higher predictive capacity, even if among the less qualified the non-EU citizens hence the migration status seems to be the reason of the low performance. With these results, we can position our five groups in one of the systems (employment, pension, unemployment etc.). In most cases, highly qualified foreigners are found at the top, followed by highly qualified nationals. This applies equally to less qualified foreigners, with the exception of less qualified non-EU foreigners, who are beneficiaries of redistribution and hence the "losers" in terms of economic performance.

According to Esser and others, integration occurs via assimilation of foreigners, who orientate themselves towards the reference values of nationals of the same level. If the foreigners want to succeed in certain essential systems of social life (employment, education), their integration is less based on the principle of reciprocity but is rather unilaterally orientated towards the national elite, or the national reference group. Yet, for Luxembourg with its phenomenon of "*Überschichtung*" (cf. Hoffmann-Nowotny, 2001, Bolzman, 2007), the reference values are perhaps more those of the highly qualified foreigners, i.e. *transnational* values, and no longer those of the *national* elites. The efforts towards social integration are thus perhaps more those of nationals with an orientation towards transnationals – a situation which is perhaps limited to very small societies, but which can give rise to reflection on the evidence of hierarchy observed in the vast majority of the literature on migration (Esser, 2001; Chicago school, etc.). The policy of selective immigration has borne fruit. The result seems thus to be a significant increase of the share of highly qualified foreigners and an inversion of the hierarchy between nationals and foreigners – an effect which was probably not aimed at, when the authorities launched these selective policies?

As with most of the studies based on the cost-benefit approach (Wang and Lao, 2000; Büchel and Frick, 2004; 2005), this study also has some limitations. First, it does not include the property tax, the business income tax, the sales tax, the business investment and the amounts of public money for education, training. However, without these incomes and taxes, this study took hold of the largest form of contribution (the income tax and social contributions) and the major types of social assistance (RMG, family allowance, unemployment insurance, health allowance). Second, the data used for this study are panel data covering only five years of the resident's life, while ideally as pointed out by Büchel and Frick (2004), observation periods should cover the respondents' whole life cycle. The research findings hence only reflect foreigners' economic impact over these five years, and no generalization can be provided.

We do not consider our contribution as an answer to the overall question of economic performance. However, the fact of positioning the five groups for different items allows us to differentiate their positions with regard to different indicators such as wages, contributions and consumptions, and within certain fields and sub fields (Bourdieu): highly qualified foreigners tend to be stronger in terms of labour market participation, whilst nationals are on the first place on a scale of private capital. Our answer concerns some indicators of economic performance with slightly varying results. The overall result is more positive for foreigners than for the equivalent groups of nationals with exception of the small group of non-EU citizens.

Appendix 1.

Table 4 - Main source of income for individuals by the migration status and educational level of the head of household (percent), 2002-2006

Nationality and educational level		Primary income (Pre government income)			Other sources of income					
							Health and care allowance	Public benefits		
		Wage	Income from self-employment	Private income	Old age pension	Disabilit y pension		Unemployment/ early retirement	Family allowance	RMG
Highly qualified nationals	25-44	87,5	28,7	44,2	1,5	0,0	2,9	1,0	50,1	0,5
	45-59	78,0	48,1	52,5	6,7	3,2	1,3	3,2	56,1	0,0
	60-75	19,7	59,6	52,8	72,0	1,0	0,5	15,5	22,8	3,1
Highly qualified foreigners	25-44	82,7	12,6	38,3	0,2	1,0	3,5	1,2	59,3	1,4
	45-59	82,0	23,0	37,2	1,3	1,2	2,9	1,2	67,2	0,2
	60-75	48,3	8,0	37,9	37,9	0,0	0,0	3,4	23,0	0,0
Less qualified nationals	25-44	77,1	18,6	34,5	1,9	2,5	13,7	1,3	65,8	3,9
	45-59	53,8	24,9	35,7	10,5	11,2	6,1	3,6	46,1	4,2
	60-75	4,9	33,1	40,8	87,5	6,8	0,8	1,5	12,8	2,8
Less qualified EU foreigners	25-44	79,1	7,3	20,5	1,4	2,7	15,0	3,8	81,1	7,0
	45-59	64,6	11,1	26,4	7,9	7,8	7,2	6,0	47,5	5,7
	60-75	7,3	15,0	31,4	78,5	11,7	1,0	3,4	8,1	4,2
Less qualified non-EU foreigners	25-44	51,5	3,1	16,5	0,5	3,1	20,1	4,6	78,9	19,6
	45-59	46,0	11,1	12,7	9,5	6,3	1,6	1,6	46,0	22,2
	60-75	0,0	13,5	8,1	43,2	5,4	8,1	0,0	59,5	43,2

Source: PSELL3/EU-SILC, waves 2002-2006: households headed by persons aged 25 to 64, authors' calculations
Reading note: 87.5 percent of highly qualified nationals between 25-44 years reported a wage as source of income

Table 5 - Yearly income components of individuals by age for the five groups, 2002-2006

		Primary income (Pre government income)	Pension and public benefits			Early retirement / Unemployment	Family allowance	Other public benefits	Social assistance (RMG)	Taxes and social contribution	Post government income
			Pension								
			Total pension	*Old age pension*	*Disability*						
Highly qualified nationals	25-44	191,9	22,7	42,3	0,0	121,9	92,9	52,5	14,0	209,2	176,6
	45-59	224,9	30,9	29,0	32,7	57,0	133,5	3,8	0,0	232,7	197,5
	60-75	468,8	155,6	162,1	24,6	882,6	273,8	50,8	52,2	319,3	231,4
Highly qualified foreigners	25-44	158,3	21,4	0,0	46,1	59,7	76,2	23,3	5,0	174,8	144,5
	45-59	214,9	14,9	5,4	23,6	21,5	220,1	6,5	0,4	174,4	204,6
	60-75	493,8	63,3	66,5	0,0	153,2	548,8	0,0	0,0	212,1	171,0
Less qualified nationals	25-44	96,6	137,8	161,3	110,5	73,9	95,0	90,8	87,0	94,2	97,4
	45-59	87,5	127,6	129,6	125,7	108,1	87,4	83,7	72,6	88,0	91,0
	60-75	81,3	103,3	103,6	98,5	48,0	76,4	85,4	85,7	92,9	97,4
Less qualified EU foreigners	25-44	74,3	86,6	51,0	128,0	147,1	111,9	125,6	131,5	70,0	79,2
	45-59	73,9	73,9	72,0	75,6	116,2	93,1	161,3	181,9	80,9	74,4
	60-75	38,5	74,1	70,5	147,1	113,8	66,2	165,4	165,3	56,2	68,0
Less qualified non-EU foreigners	25-44	39,0	15,4	0,0	33,2	165,1	156,0	330,7	460,4	32,3	52,3
	45-59	19,7	127,2	130,4	124,2	5,8	42,5	542,4	683,8	26,2	31,9
	60-75	54,4	55,4	58,1	0,5	0,0	793,8	564,9	533,3	88,1	53,4

Source: PSELL3/EU-SILC, waves 2002-2006: households headed by persons aged 25 to 64, authors' calculations
Reading note: The market income of highly qualified nationals between 25-44 years old is 92 percent higher than the mean income of the residents aged of 25-44 years old

Appendix 3.

Table 6 - Income component as proportion of total post-government income of individuals living in household headed by 25-75 years (percent), 2002-2006

		Primary income (Pre government income)	Pension			Early retirement / Unemployment	Family benefit	Other public benefits	Social assistance (RMG)	Taxes and social contribution*	Post government income
			Total pension	*Old age pension*	*Disability*						
Highly qualified nationals	25-44	128,9	0,1	0,1	0,0	0,5	3,9	0,2	0,0	-25,9	100,0
	45-59	131,3	1,2	0,6	0,7	0,7	2,4	0,0	0,0	-26,8	100,0
	60-75	64,9	59,0	58,6	0,4	6,6	0,6	0,1	0,1	-23,9	100,0
Highly qualified foreigners	25-44	129,8	0,1	0,0	0,1	0,3	3,9	0,1	0,0	-26,3	100,0
	45-59	121,1	0,6	0,1	0,5	0,3	3,9	0,0	0,0	-21,2	100,0
	60-75	92,5	32,5	32,5	0,0	1,6	1,5	0,0	0,0	-22,2	100,0
Less qualified nationals	25-44	117,6	1,4	0,9	0,5	0,5	7,2	0,7	0,3	-22,8	100,0
	45-59	110,9	11,0	5,3	5,7	3,0	3,4	0,9	0,6	-23,3	100,0
	60-75	26,7	93,1	88,9	4,2	0,9	0,4	0,5	0,5	-17,8	100,0
Less qualified EU foreigners	25-44	111,1	1,1	0,3	0,7	1,3	10,4	1,2	0,5	-21,8	100,0
	45-59	114,5	7,8	3,6	4,2	4,0	4,5	2,2	1,9	-25,7	100,0
	60-75	18,2	95,7	86,7	9,0	2,9	0,5	1,5	1,5	-15,8	100,0
Less qualified non-EU foreigners	25-44	88,4	0,3	0,0	0,3	2,1	22,0	4,7	2,8	-18,3	100,0
	45-59	71,1	31,3	15,3	16,0	0,5	4,8	17,2	17,0	-20,7	100,0
	60-75	-	-	-	-	-	-	-	-	-	100,0
All households		99,4	21,7	19,0	2,7	1,6	4,5	0,8	0,6	22,6	100,0

Source: PSELL3/EU-SILC, waves 2002-2006: households headed by persons aged 25 to 64, authors' calculations
*As proportion of pre-government income + pension + early retirement + unemployment+RMG+public benefits
Reading note: the pre-government income of highly qualified nationals between 25-44 years old is 29 percent higher than their post-government income

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