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From immigrants to (non-)citizens: political economy of naturalisations in Latvia

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Abstract

We study the determinants of the willingness to acquire citizenship of Latvia by 'non-citizens' – the former Soviet migrants and their descendants born on the territory of Latvia. The country of Latvia serves as an instructive laboratory for the analysis of naturalisations: due to the centrally planned nature of its 1945–1991 immigration flows, we can exclude the possibility that migrants came with an intention to acquire host country citizenship. Using data from a 2007 survey of 624 former and current 'non-citizens', we find that the elderly, males, single, and those with poor knowledge of the State language are less willing to naturalise. Prospective emigrants are more likely to have naturalised recently in preparation for partaking in the wider EU labour market - a right that citizenship of EU member Latvia conveys. Instrumental variable analysis suggests that low level of education is an obstacle for acquiring citizenship, while higher unemployment rate and lower share of non-citizens at a respondent's place of residence contributes to early naturalisations.

JEL codes: F22, J15, J61

Keywords: Naturalisation, Latvia, Non-citizens, Migrants

1. Introduction

With rising foreign origin populations, social and economic integration of migrants has become a major preoccupation in many migrant receiving societies. In this context, ascending to the host country citizenship is often regarded as a crucial and positive step in the process of migrant integration. From a receiving society's perspective, naturalised migrants may be viewed as more reliable and integrated stakeholders embracing the way of life of the host country. From a migrant's perspective, naturalisation could be considered as a tool to improve labour market outcomes, social acceptability and legal standing. Citizenship acquisition may even strengthen the link with the home country: the passport of the host country promises free 'commuting' between host and home country and facilitates a transnational type of life (Constant and Zimmermann 2011).

A different kind of motive for foreign citizenship acquisition has recently been highlighted in several countries of Eastern Europe. For instance, the accession of Romania and Bulgaria to the European Union massively increased the attractiveness of these countries' citizenship for people living in neighbouring non-EU countries, such as Moldova and Macedonia: holding a Romanian or Bulgarian passport is a free entry ticket to the EU labour market (Smilov and Jileva 2009; BBC 2009). Given that Eastern Europe is an important corridor of South–north transit and onward migration (Düvell 2008),

acquiring citizenship of a new or aspiring EU member state may be an easy way of gaining access to the wider EU labour market.

Upon receiving citizenship of a 'new' country of residence a person, typically, is obliged to simultaneously give up his/her previous citizenship. But what if a person does not possess any citizenship? Would not such a person, having nothing to lose, want to take the first opportunity that presents itself to obtain citizenship? This is not a theoretical thought experiment. There are people who find themselves in a situation without citizenship of any country – in the EU member state Latvia. Moreover, a significant number of them, although eligible, do not wish to obtain citizenship. This paper is devoted to studying this unusual phenomenon.

Latvia hosts one of the highest shares of foreign-born (17% in 2005) and ethnic minorities (41% in 2011) in the EU. It also hosts a substantial number of *non-citizens* (15% in 2011)¹ – a highly non-standard categorization of residents consisting of the former Soviet immigrants *and* their descendants born on the territory of Latvia during Soviet times. The issue of non-citizenship has been controversial in Latvia: the high share of people without voting rights has arguably contributed to social exclusion and marginalisation (ECRI 2002), fuelled far-right and far-left political parties (Smith-Sivertsen 2004) and bred different forms of ethnic conflict.² The dynamics of the naturalisation process in Latvia – and in particular its slow pace – are still not well understood. Why do non-citizens not wish to naturalise? Who are the 'hard-shell' non-citizens? Answers to these questions are of primary importance to Latvian policymakers and to the international community.

Being a non-citizen of Latvia brings, not surprisingly, disadvantages relative to citizen status. Non-citizens are prohibited from participating in elections (state or municipal) implying very limited opportunities to influence the political processes of the country. Non-citizens of Latvia are not considered to be EU citizens – so "free movement of labor" does not apply to them. They are also not allowed to work in government, police and civil service (Hughes 2005). Some evidence suggests non-citizens in Latvia (and Estonia) have lower employment probability and lower earnings (Kahanec and Zaiceva 2009).³ More surprising is the fact that non-citizen status also brings some advantages – the biggest advantage being visa-free travel to Russia. As, in addition, non-citizens can enjoy visa-free travel in the Schengen area, this adds up to a rather attractive package for those engaged in frequent travel to Russia.

This paper studies the costs and benefits of acquiring Latvian citizenship accruing to non-citizens, as well as the obstacles standing in the way, and determines what individual and municipality level factors affect the willingness and/or reluctance to naturalise.⁴ Following the literature (Bratsberg et al. 2002; Devoretz and Pivnenko 2005; Devoretz 2008; Garcia 1981; Kahanec and Tosun 2009; Woodrow-Lafield et al. 2004; Zimmermann et al. 2009; Yang 1994), we view the decision to ascend to citizenship within a cost-benefit framework and recognise the role of social, economic and demographic factors, ethnic networks, and regional, institutional and attitudinal effects in the decision to naturalise.

This paper makes several important contributions to the burgeoning theoretical and empirical literature on citizenship acquisition (see e.g. Devoretz (2008) and Kahanec and Tosun (2009) for an overview). First, the case of Latvia offers to the analyst demographic strata that are unusually opportune for a study of this kind. Latvia's non-citizens originate from the centrally planned Soviet-era migration flows, which were based on exogenous policy shocks rather than individual choices and, therefore,

possess many attributes of a natural experiment. This makes the case of Latvia an instructive laboratory for studying long-term effects of migration in general, and the acquisition to host country citizenship in particular. For example, we can exclude the possibility that migrants (with particular characteristics or in general) came to Latvia with a prospect or intention of obtaining the citizenship of the host country. This is because of two reasons: as already mentioned above, the Soviet-era migration was not based on individual choice, and, furthermore, there was, at that time, no independent state of Latvia – and thus no citizenship to get. These conditions are crucial for establishing a causal ordering from migration to citizenship, and ruling out reverse causality – one of the important contributions of this paper to the existing literature, which has so far presented correlations.

A second contribution of this paper is methodological. We explicitly deal with the problem of estimating the effect of time-variant variables (individuals' level of education, local rate of unemployment and local share of non-citizens) on a dependent variable which captures both past events (naturalisations made more than 5 years ago) and future intentions (willingness to naturalise in the future). Using instrumental variables techniques, we contribute to a better understanding of the role played by education, as well as local labour market- and peer effects, in the dynamics of the naturalisation process.

Third, our paper focuses on the naturalisation behaviour of the stateless – people without citizenship of any country. Statelessness remains a relatively unexplored phenomenon, yet there are 15 million stateless people in the world, found e.g. in Latvia, Estonia, Russia, Ukraine, Syria, Iraq, Kuwait, Kenya, Nepal, Bangladesh, Myanmar and Sri Lanka (UNHCR [UN Refugee Agency] 2007). Despite various geographical, cultural, social and economic backgrounds, the stateless of the world share one important common feature: they tend to originate from migration flows managed by former empires – for example, Soviet, British and Ottoman. In most cases, the stateless are eligible for naturalisation in the countries they live in (UNHCR [UN Refugee Agency] 2007); thus the results of this study carry a potential to inform policy far beyond Latvia.

Finally, the unique survey implemented in Latvia in 2007, on which this paper is based, is particularly suitable for the analysis of citizenship aspirations. Crucially for our study, we know whether the respondents with Latvian citizenship are former non-citizens, and whether the current non-citizens have the intention to naturalise in the future. The data also allow us to differentiate between naturalisation intentions of two sub-groups: former migrants, and their descendants born on the territory of the host country. In addition, the information on respondents' residence is provided at a very disaggregated level, allowing us to study possible effects of municipality-level variables, such as the unemployment rate and the share of non-citizens, on the propensity to naturalise.

The remainder of the paper is structured as follows. The next section reviews the historical background of the non-citizenship phenomenon in Latvia and discusses the costs and benefits of naturalising. Section three presents data, variables and estimation methodology. Section four presents empirical results. Section five concludes.

2. Historical background and the costs and benefits of becoming citizen of Latvia

Latvia's non-citizens originate from the Soviet era migration flows. Workers from Russia, Belarus and Ukraine were "sent" by central planners to transform Latvia into an industrial

economy (Karklins 1994; Laitin 1998; Munz and Ohliger 2003). Although the immigration originated in central planning rather than individual choices, the high standard of living known to prevail in Latvia, its proximity to Western Europe and related factors made an assignment to move to Latvia, for the most part, a relatively pleasant prospect (Parming 1980). As a result of these migration flows, the share of ethnic Latvians in the population of Latvia decreased dramatically from 82% in 1945 to 52% in 1989.

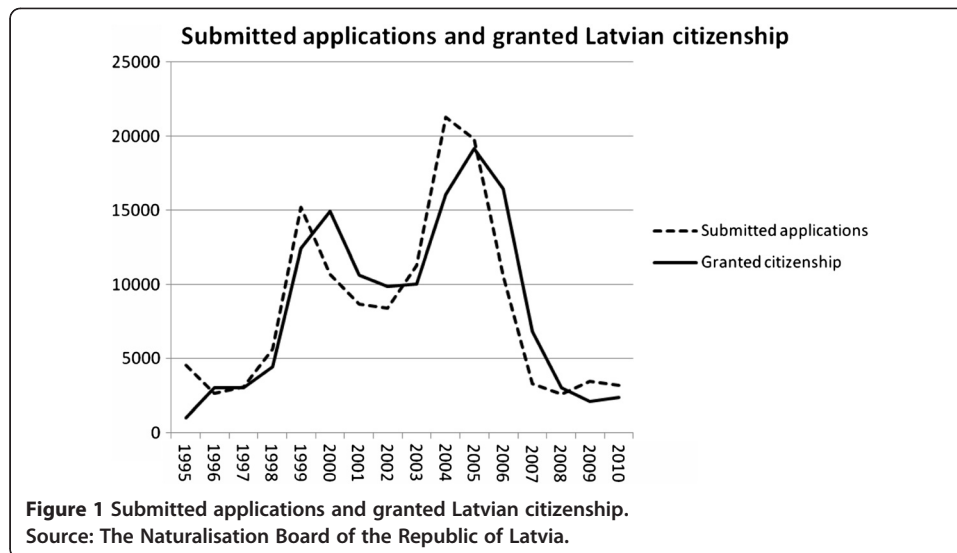
Upon the break-down of the Soviet Union in 1991, Latvia did not consider itself as a new state but as a continuation of a Latvian state that existed between the two World Wars. Therefore, only former (pre-1940) Latvian citizens and their descendants were allowed to restore their citizenship. About 700,000 former immigrants from the Soviet Union and their descendants born in Latvia remained with passports of a USSR that no longer existed. In 1995, when the new citizenship law came into effect, they received a special status of *non-citizen of Latvia/aliens/stateless* (Budryte 2005, Galbreath 2005, Hughes 2005, Kolströ 1996). Non-citizens may naturalise provided that they have been permanent residents of Latvia for at least 5 years, have a legal source of income, are fluent in the Latvian language (have to pass an exam), know the text of the National Anthem and correctly answer questions regarding Latvia's Constitution and history.⁵ Double citizenship (e.g. non-citizenship of Latvia and citizenship of Russia) is not allowed.

According to the Naturalisation Board of the Republic of Latvia, the number of non-citizens decreased from 670,480 (27.2% of the population) in 1996 to 325,845 (14.6%) in 2011. However, only a relatively small part of this decrease was due to naturalisations (there were 135,206 naturalisations between 1996 and 2011, or 20.2% of the total number of non-citizens in 1996); the remainder is attributable to other causes, e.g. deaths and acquisition of citizenship of another country (ECRI 2002).⁶ The naturalisation rate in general has been relatively low and the number of non-citizens remains high - as has been regularly pointed out by international institutions (ECRI 2002, ECRI 2008, European Commission 2002, Open Society Institute 2001, Collier 2008).

Figure 1 illustrates the evolution of the number of citizenship applications as well as granted citizenships, from 1995 to 2010 - conveying two peaks. The first peak is explained by a major "supply shock" - the abolition, in 1998, of the so-called "age-windows system" which set a specific timetable for naturalisations, giving priority to the younger and to those born in Latvia (ECRI 2002, Open Society Institute 2001). This major softening of the citizenship policy was a result of criticism from the international community and, to a large extent, was a precondition for Latvia's accession to the EU (Galbreath and Muiznieks 2009, Gelazis 2004, Hughes 2005, Morris 2003).

The second peak occurred in 2004–2006 and is explained by the EU enlargement. In 2004 Latvia joined the EU, and Latvian citizens obtained the right to work without work permits in the UK, Ireland and Sweden. Given that the non-citizens of Latvia are not considered citizens of the EU, labour mobility acted as a strong incentive to naturalise (Galbreath and Muiznieks 2009). This interpretation is supported by the increase in the share of the young among the applicants for Latvian citizenship after 2004 (left panel of Figure 2). In addition, EU accession has, arguably, made Latvia itself a more attractive country to live in and its citizenship a more desirable asset.⁷

Of particular interest for this study is the question why some of the non-citizens of Latvia do *not* want to naturalise. To provide answers we present, in Table 1, the



findings from two qualitative surveys conducted in Latvia in 2003 and 2007.⁸ The first survey was commissioned by the Naturalisation Board of the Republic of Latvia, conducted in 2003, and consists of interviews with 6825 non-citizens from municipalities with a high share of non-citizens and low pace of naturalisation (Brande Kehre and Stalidzane 2003). The second survey was commissioned by the Secretariat of the Special Assignment Minister for Social Integration of the Republic of Latvia, conducted in 2007, and consists of interviews with 1,200 residents of Latvia, out of whom 239 respondents are non-citizens of Latvia (Secretariat of the Special Assignment Minister for Social Integration 2008).

Table 1 shows that the two distinct surveys elicit very similar responses regarding the reasons for why non-citizen do not naturalise. One of the major deterrents is the rejection of the whole idea of naturalisation. Saying “no” to naturalisation is a form of protest. A common perception among the non-citizens is that they should not have to undergo the “unfair/humiliating/offending” procedure of naturalisation because they were born in Latvia, lived in Latvia all their lives, worked in Latvia all their lives, supported the independence of Latvia in the early 1990s etc. (Balandina 2004, ECRI 2008, Zepa et al. 2003). In Table 1 this sentiment is strongly and directly expressed in the 2003 responses - (1) and (9), and in the 2007 responses – (e). Indirectly the sentiment may, additionally, be expressed in (5) and (a).

Next, it costs money to naturalise. Currently, the state duty for submission of a naturalisation application is 20 LVL (28 EUR), down from 30 LVL (55 EUR) that was charged till 2001.⁹ While low by western European standards, this amount of money is non-negligible relative to the Latvian monthly minimum wage (60 LVL (110 EUR) in 2000 and 140 LVL (200 EUR) in 2009). According to the European Commission, a high application fee remained an obstacle to naturalisation in 2000 (European Commission 2000). In Table 1 response (7) addresses the cost side directly. In addition, people perceive the naturalisation procedure as administratively and organisationally cumbersome and complex in terms of information requirements. Responses (2), (8), (10), (12), (c), (f) of Table 1 give ample testimony to this obstacle.

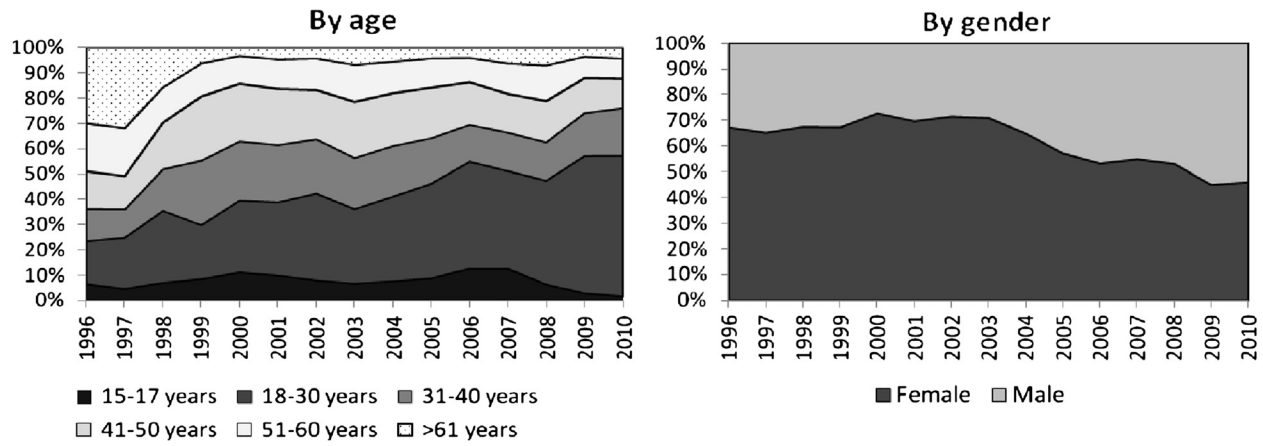


Figure 2 Applications for Latvian citizenship by age and gender.
 Source: The Naturalisation Board of the Republic of Latvia.

Table 1 The reasons for non-naturalising – evidence from Brande Kehre and Stalidzane (2003) and Secretariat of the Special Assignment Minister for Social Integration (2008)

2003 : Why don't you use the possibility to naturalise?	% of respondents
1) I consider that I have an automatic right to Latvian citizenship	34%
2) I hope that the process of naturalisation will be simplified	26%
3) It is easier to travel to the CIS countries	26%
4) I think that I will not be able to pass the Latvian language exam	24%
5) I do not feel the necessity	22%
6) I think that I will not be able to pass the Latvian history exam	21%
7) I do not have money to pay the fee	20%
8) I do not have time to do the necessary formalities	18%
9) I consider that the process of naturalisation is humiliating	18%
10) I feel it is difficult to start the naturalisation process	11%
11) I want to be/am a citizen of another country	4%
12) It is difficult to get to the Naturalisation Board office	3%
2007 : The reasons why you do not plan to acquire Latvian citizenship	% of respondents
a) I do not see the necessity	44%
b) Insufficient knowledge of Latvian	37%
c) I do not have time to do the necessary formalities	29%
d) Insufficient knowledge of Latvian history	24%
e) I consider that the process of naturalisation is humiliating	21%
f) I do not have enough information about the naturalisation process	20%
g) I do not feel belonging to the Latvian state	17%
h) Latvian citizenship will complicate travelling to Russia and other CIS countries	10%
i) I want to acquire citizenship of another state	6%

Note: Answers in the upper panel are from Brande Kehre and Stalidzane (2003), based on survey conducted in 2003, 6825 respondents; answers in the lower panel are from Secretariat of the Special Assignment Minister for Social Integration (2008), based on survey conducted in 2007, 112 respondents (the non-citizens who do not plan to acquire citizenship).

Successful naturalisation implies passing Latvian language and history exams. However, many non-citizens of Latvia, and especially the old, report that passing the exams would be difficult for them (Zepa et al. 2003). The language and history exam barrier is clearly revealed in Table 1 in responses (4), (6), (b), (d).

The next cluster of motivations for keeping the non-citizen status is best understood against the backdrop of the advantages for travel that citizenship of Latvia entails. Up to January 2008, non-citizens needed visas to travel to all EU countries. A Latvian passport would allow travel without visa throughout the EU, and to countries like the US (visa-free from 2008). The desire to travel in Europe without visas might have increased the willingness to naturalise up to January 2008: 25.2% of the respondents in the Brande Kehre and Stalidzane (2003) survey said that the possibility to travel visa-free in Europe would be a motivating factor for acquiring citizenship. In January 2008, the Latvian non-citizens obtained the right to travel without visas in the Schengen area.¹⁰ This might, in part, explain why the number of applicants went down in 2008 – as can be seen from Figure 1.

Non-citizens of Latvia, typically, have family ties in the ex-Soviet Republics – primarily in the Russian Federation, Belarus and Ukraine. For most of the period under consideration, both citizens and non-citizens of Latvia required visas to travel to Russia.

However, the non-citizens have always had important discounts - so cheaper visas, in particular, to Russia and Belarus¹¹ acted as a monetary incentive to keep the non-citizenship passport. This sentiment is clearly expressed in Table 1 responses (3) and (h).

In 2008, i.e. after the survey results reported in Table 1, the Russian government abolished visas for non-citizens of Latvia and Estonia travelling to Russia. This significantly increased the attractiveness of keeping the non-citizen status. It now allowed for travel to most of the EU *and* Russia without visas, and arguably contributed to the fall in citizenship applications in 2008 and 2009. Russia's decision to introduce a visa-free regime for the non-citizens was considered, by officials of Latvia and Estonia, to be a direct attempt to influence their citizenship policy (Ria Novosti 2008, Reuters 2008). This gives reason to expect that a post-2008 survey would display an increased incidence of travel-related reasons for keeping the non-citizen status relative to the surveys of 2003 and 2007, on which Table 1 draws.

There also is a gender-specific motive for saying "no" to naturalisation. Up to 2006, Latvia subscribed to compulsory military service. The non-citizen passport gave the right to avoid military service for young (up to 27 years old) non-citizen men - making the non-citizen passport attractive to them. By the end of 2006 conscription was abolished and this disincentive to naturalisation disappeared. The aggregate data support this policy-based explanation: although we do not notice an increase in the number of total applications in 2007 and 2008, the share of males in the total number of applicants increased in the 2006–2008 period - as can be seen from the left panel of Figure 2.

Among the advantages to obtaining Latvian citizenship there is one related to pensions. Citizens of Latvia who have served in the military or worked outside Latvia during Soviet times (i.e. in another Soviet republic) have these years taken into account when their pension is calculated. For non-citizens of Latvia, only the years worked on the territory of Latvia are taken into account in pension calculation. Therefore non-citizens who have served in the military or worked outside Latvia have an incentive to naturalise.

In light of the many advantages conveyed by citizenship the proportion of non-citizen who want to maintain this status is surprisingly large – pointing in the direction of both practical and emotional reasons for not wanting Latvian citizenship. In the next section we take a closer look at the individual and municipality level factors which have influenced the decision to naturalise/not naturalise in Latvia.

3. Data, variables and estimation strategy

3.1 Data

Our empirical analysis is based on a survey we commissioned – face-to-face interviews with individuals aged 15–74. The survey was conducted by Marketing and Public Opinion Research Centre (Riga) during June and July 2007. The database contains 2161 observations. The sample is representative, insofar as it closely replicates regional, ethnic, gender and citizenship distributions of the general population. The Additional file 1 Online appendix to this paper provides a detailed description of survey design, implementation and representativeness.

3.2 Variables and empirical methodology

All interviewees were asked whether or not they currently were citizens of Latvia. Current citizens were then asked whether the citizenship was obtained through

registration (descendants of citizens) or naturalisation, and when citizenship was obtained. Non-citizens were asked whether they did or did not plan to obtain citizenship in the future.

Table 2 shows the distribution of answers. Altogether 17.08% of the respondents said that they did not have citizenship of Latvia. This replicates the population share of non-citizens in Latvia (17.20% at the beginning of 2007 and 16.37% at the beginning of 2008 (Source: Central Statistical Bureau of Latvia). 12% of the respondents reported to have obtained Latvian citizenship prior to the interviews. It is these two groups – the current and former non-citizens – that we focus on in our empirical analysis.

Combining the respondents who, at the time of the interviews, did not have Latvian citizenship (current non-citizens) and the respondents who had obtained Latvian citizenship through naturalisation (former non-citizens) gives us a total sample of 627 individuals. We divide it into 4 groups: 1) those who had obtained Latvian citizenship more than 5 years ago; 2) those who had obtained Latvian citizenship less than 5 years ago or were undergoing the naturalisation procedure at the time of the interviews; 3) those who were planning to obtain Latvian citizenship in the future;¹² and 4) those who did not plan to obtain Latvian citizenship. We have merged the categories ‘naturalised less than 5 years ago’ and ‘currently undergoing naturalisation procedure’ because of the similarity of status between the two (both could be considered ‘recent’ naturalisations) and the relatively small number of respondents in the ‘current naturalisations’ category. To avail ourselves of as much variation in citizenship status as possible, we refrain from merging any other citizenship categories and obtain four groups of relative balance in terms of number of respondents.

Following the empirical literature on citizenship aspirations (see e.g. Zimmermann et al. 2009), we estimate the probabilities of falling into one of the above four categories (dependent variable) with a multinomial probit model.¹³ The set of explanatory variables includes age, years of education, dummy variables for gender, marital status, having children under 18, being unemployed, working in the public sector, living in rural area, born outside Latvia (former migrant), low income (up to 100 LVL per household member, approximately corresponding to the first income quintile) and non-reported income. We also include dummies for three levels of self-reported proficiency in the State (Latvian) language. This allows us to determine whether insufficient knowledge of the State language is a potential barrier to the acquisition of citizenship. A dummy capturing self-reported likelihood of emigration serves to check whether Latvian citizenship is sought in order to emigrate.¹⁴ Finally, we include in our analysis two municipality-level variables – the unemployment rate and the share of non-citizens

Table 2 Citizenship status and citizenship aspirations of the respondents

	n	%
Latvian citizen, citizenship obtained through registration (pre-1940 citizens or their descendants)	1534	71.0
Latvian citizen, citizenship obtained through naturalisation more than 5 years ago	159	7.4
Latvian citizen, citizenship obtained through naturalisation less than 5 years ago	99	4.6
Non-citizen, currently undergoing the procedure of naturalisation	15	0.7
Non-citizen, plans to obtain citizenship in the future	127	5.9
Non-citizen, does not plan to obtain citizenship	227	10.5

in the village/town/city in which a respondent lives (both for the beginning of 2007) – as well as six province dummies. The province dummies control for all unobserved regional effects and are helpful in untangling the ‘true’ effect of the municipality-level variables from underlying province effects. In addition, province dummies are variables of primary interest for policymakers. This is because directing policy efforts to a particular region is relatively easy, using the network of the Naturalisation Board regional branches. The summary statistics of all the variables included in the analysis are reported in the Additional file 1 Online appendix.

4. Empirical results

At the outset, it should be noted that several of our individual-level regressors (e.g. education, income, marital status) and the two contextual regressors (municipality unemployment rate and the share of non-citizens) can change over time. They are observed or measured at the moment of the survey but are used to explain decisions made in the past (e.g. naturalisations made more than five years ago). In addition, citizenship acquisition in the past may have a direct effect on current individual characteristics. For example, a naturalised person may have better chances of getting a job in the public sector. Unfortunately, our survey does not contain information on individual characteristics at the time of respondents’ naturalisation. Therefore, due to potential regressor endogeneity, the estimated coefficients will have to be interpreted as correlations rather than causalities. However, for three time-variant regressors – education, local unemployment rate and local share of non-citizens – we are able to perform instrumental variable analysis and obtain more reliable estimates. In the following two subsections, we discuss the results on non-instrumented (baseline) and instrumented estimations.

4.1 Baseline results

Table 3 presents the marginal effects of a multinomial probit regression, which includes the (non-instrumented) individual and municipality level regressors, as well as the province dummies, as outlined in section 3(b). Marginal effects are calculated in such a way that they sum to zero over the four outcomes of the dependent variable; it is, therefore, not necessary to specify a reference group against which the outcomes of the dependent variable are compared. In the following, we focus on the regressors with statistically significant outcomes.

Age is strongly correlated with the willingness to naturalise. The probabilities of being a “recent citizen” (naturalised in the past 5 years or currently undergoing naturalisation procedure) and a “future citizen” (planning to obtain Latvian citizenship in the future) decrease with the respondent’s age. Conversely, the probability of not wanting to naturalise increases with age. This result, in line with the existing literature (Woodrow-Lafield et al. 2004; Kahanec and Tosun 2009; Devoretz 2008), is not surprising: compared to the elderly, younger people have more to gain from citizenship. The younger are more likely to be economically active and have jobs for which citizenship is required or at least advantageous, they are more willing to travel abroad and more likely to seek participation in the political processes of the country and, arguably, they are more likely to accept the whole idea of naturalisation.

Males are found to be 10.1 percentage points more likely to remain non-citizens and 10.3 percentage points less likely to fall into the “recent citizen” category, other factors

Table 3 Determinants of the decision to naturalise, multinomial probit marginal effects

	Not willing to naturalise	Plans to naturalise in the future	Naturalised less than 5 years ago or currently naturalising	Naturalised more than 5 years ago
Age	0.014*** (0.002)	-0.008*** (0.001)	-0.006*** (0.001)	0.000 (0.001)
Male	0.101** (0.043)	-0.020 (0.049)	-0.103*** (0.022)	0.022 (0.036)
Married	-0.117*** (0.042)	0.051 (0.031)	0.021 (0.016)	0.045 (0.046)
Has a child under 18	0.029 (0.089)	0.022 (0.033)	-0.011 (0.057)	-0.040 (0.039)
Unemployed	-0.128 (0.099)	-0.098 (0.074)	0.102 (0.101)	0.125 (0.118)
Works in public sector	-0.084 (0.084)	-0.062 (0.066)	0.041 (0.032)	0.105** (0.048)
Lives in rural area	-0.007 (0.084)	0.048 (0.093)	0.057 (0.088)	-0.097 (0.081)
Low income	0.090 (0.060)	-0.011 (0.037)	-0.015 (0.021)	-0.064 (0.053)
Non-reported income	0.146* (0.078)	-0.075 (0.059)	-0.047** (0.019)	-0.023 (0.038)
Years of education	-0.019** (0.009)	-0.001 (0.004)	0.011* (0.006)	0.009 (0.008)
Good knowledge of Latvian	-0.209*** (0.061)	-0.212*** (0.037)	-0.017 (0.047)	0.439*** (0.075)
Poor knowledge of Latvian	0.388*** (0.043)	0.019 (0.043)	-0.132*** (0.037)	-0.274*** (0.034)
Former migrant	0.140** (0.071)	-0.040 (0.074)	0.029 (0.030)	-0.130*** (0.047)
Likely to migrate	0.022 (0.042)	0.041 (0.044)	-0.104** (0.044)	0.041 (0.056)
Municipality unempl. rate 2007	-0.019 (0.017)	0.006 (0.015)	-0.020 (0.012)	0.033*** (0.010)
Municipality share of non-citizens 2007	-0.002 (0.005)	0.001 (0.005)	0.017*** (0.005)	-0.016** (0.006)
Pieriga province	-0.013 (0.064)	-0.111*** (0.040)	0.211*** (0.049)	-0.086 (0.062)
Vidzeme province	-0.208** (0.099)	-0.146* (0.084)	0.492*** (0.161)	-0.137 (0.096)
Kurzeme province	-0.055 (0.042)	0.087* (0.048)	0.183*** (0.064)	-0.215*** (0.023)

Table 3 Determinants of the decision to naturalise, multinomial probit marginal effects (Continued)

Zemgale province	-0.051 (0.090)	-0.124** (0.057)	0.313** (0.132)	-0.138 (0.085)
Latgale province	0.101** (0.051)	0.010 (0.037)	0.083** (0.039)	-0.194*** (0.052)

n = 624; Wald chi2 = 379.65; Prob > chi2 = 0.000; Log pseudolikelihood = -591.759.

Note: Reference group - high income, average knowledge of Latvian, lives in Riga. Robust standard error clustered at municipality level in parentheses.

* p < 0.10, ** p < 0.05, *** p < 0.01.

held constant. One explanation for such gender gap could be lower civic engagement of males in Latvia. Also males could possibly have a stronger perception of the naturalisation process being humiliating. The literature delivers mixed results in this regard. For example, our findings are consistent with Zimmermann et al. (2009) who show that female heads of households are both more likely to acquire citizenship in the future and to already be in possession of citizenship, compared to their male counterparts. However, based on data for immigrants in Canada, Devoretz (2008) reports the opposite result: males are more likely to attain Canadian citizenship – a result that is also in agreement with Yang (1994). Kahanec and Tosun (2009), based on a dataset of immigrants in Germany, conclude that gender does not play any role for the propensity to obtain citizenship.

Returning to the results of this paper, married respondents are on average 11.7 percentage points less likely to report unwillingness to naturalise, possibly reflecting consideration for the future of their children. This is in line with some existing results in the literature; e.g. Zimmermann et al. (2009) find a positive and significant effect of marriage on the plans to obtain citizenship in the future, using a dataset for immigrants in Germany.¹⁵ Such results are, however, not uniform in the literature. Kahanec and Tosun (2009), for example, report negative correlation between marriage and naturalisation propensity. Earlier literature also provides mixed findings. For example, Beijbom (1971) finds a positive and statistically significant effect of marriage on Swedish immigrants' propensity to obtain citizenship in the USA, while Guest (1980) does not find any discernable correlation between marital status and naturalisation.

Working in the public sector increases, by 10.5 percentage points, the probability of early naturalisation (more than 5 years prior to the interview). The result reflects the incentive to obtain citizenship in order to preserve public sector jobs.¹⁶ Also those working in the public sector could also be more civically active, politically aware, and ready to make use of the opportunity to influence the political process. The important positive correlation between civic and political participation and the willingness to obtain citizenship is demonstrated empirically by e.g. Kahanec and Tosun (2009) for a dataset of immigrants in Germany.

We do not obtain any interpretable relationship between income and willingness to naturalise.¹⁷ Only the respondents who did not report their income are 14.6 percentage points more likely, than high income earners, to say they are unwilling to naturalise and 4.7 percentage point less likely to be recently naturalised citizens. The absence of a clear relationship between income and naturalisation behaviour is not surprising in light of the mixed results in the literature. For example, Devoretz (2008) obtains

significant and positive correlation between income and immigrants' propensity to obtain citizenship for a dataset of immigrants in Canada, while Kahanec and Tosun (2009), using a different dataset on immigrants in Germany, arrive at negative correlation.

Education is significantly correlated with the likelihood of naturalising. An extra year of education is associated with 1.9 percentage points lower likelihood of not wanting to naturalise, and with 1.1 percentage points higher likelihood of having naturalised recently. This result lends itself to the interpretation that the naturalisation procedure is complicated and discouraging for people with lower levels of education, and comes against mixed results in the literature: Zimmermann et al. (2009) find a positive and significant correlation between education and the probability of possessing German citizenship, Kahanec and Tosun (2009) find a positive, albeit non-significant, correlation between education and willingness to naturalise in the future, while Devoretz (2008) finds a negative and significant correlation between education and the probability of acquiring Canadian citizenship. In the next subsection, we instrument own education with parental education in order to deal with the time-varying nature of the variable and, thereby, gain more insights into the role education plays in explaining the propensity to naturalise.

Knowledge of the state language is by far the most significant correlate of the willingness to naturalise in Latvia. *Ceteris paribus* and with reference to respondents speaking Latvian at the intermediate level, respondents having basic or no knowledge of Latvian are 38.8 percentage points more likely to report that they are not willing to naturalise. Symmetrically, respondents with better than average proficiency in Latvian are 43.9 percentage points more likely to report that they obtained citizenship long (more than 5 years) ago.¹⁸ It is important to note that the causality between knowledge of the State language and willingness to naturalise can run both ways: on the one hand, people with better knowledge of Latvian are more efficient in overcoming administrative barriers associated with naturalisation procedure and passing the language and history exam; on the other hand people willing to naturalise may choose to improve their proficiency in Latvian.¹⁹ Such two-way causality makes proficiency in the State language potentially endogenous and the obtained coefficients potentially biased. The results should, therefore, be interpreted with caution.

Next, we find that former migrants are 13 percentage points less likely to be "early citizens". This finding can be explained by the "window system", which, until 2000, prevented former migrants from applying for Latvian citizenship. In addition, former migrants are found to be 14 percentage points more likely to report that they are not willing to naturalise in the future. This finding may be explained by a particular "ideological stubbornness" of the former migrants, who may find it difficult to accept the very existence of the independent Latvian state and to reconsider their role in it. This group of people typically entered the then Soviet province of Latvia at the 'high time' of the Soviet Union, enjoying a relatively privileged position. The subsequent loss of privilege accompanying the dissolution of the Soviet Union has been an experience that sent many into deep denial. Saying 'no' to naturalisation is a form of protest against a naturalisation procedure that is perceived as humiliating and unfair. This interpretation is supported by Table 1, in particular responses (1), (9), (e), (g).

Another important finding is a positive and significant correlation between the willingness to naturalise and emigration intentions: keeping other factors constant,

respondents considering emigration are 10.4 percentage points more likely to be “recent citizens” – those who naturalised in the past five years or were undergoing the procedure of naturalisation at the time of the interview. This finding confirms the hypothesis that intentions to emigrate from Latvia, motivated by the 2004 EU enlargement and the subsequent liberalisation of the EU labour markets, is an important incentive to obtain Latvian citizenship. This, indeed, gives reason for concern. While seeking citizenship is typically interpreted as a positive sign of acceptance of, and integration into the country of residence, our findings suggest that for a non-negligible number of Latvian residents it signals the opposite: a preparation for “escape” from the country.

Interesting insights are offered by the municipality-level variables. First, we find that higher unemployment at the respondent’s place of residence is associated with a higher probability of “early naturalisation” and a lower probability of “recent naturalisation”. The finding can be explained by the willingness to increase one’s attractiveness in a difficult labour market. For example, holding citizenship may increase chances of employment in the public sector. This may be an asset if the unemployment rate is high and it is difficult to find a job in the private sector. However, if the unemployment rate is low and alternative jobs, for which Latvian citizenship is not essential, can be easily found, an individual can “afford” not to pass the naturalisation exams or might postpone naturalisation. The finding is similar to Kahanec and Tosun (2009), who also find a positive and significant effect of regional-level unemployment on citizenship aspirations in Germany.

Second, the results suggest that, other things equal, earlier naturalisations (more than 5 year prior to the interview) are more frequent in localities with a lower share of non-citizens, while more recent and ongoing naturalisations are more frequent in localities with higher shares of non-citizens. One explanation could be that in localities with low shares of non-citizens, the respondents have more contacts with citizens of Latvia, are more integrated with the citizen community, speak the State language better, and are more likely to be married to a citizen. All these factors could facilitate the early decision to naturalise.²⁰

Finally, we also notice substantial regional variation in earlier and more recent rates of naturalisations. Respondents from the capital, Riga, and its agglomeration (Pieriga) were among the first to accede to citizenship; respondents from other regions tend to be more recent citizens. Easier access to information in the capital and its agglomeration, the high concentration of government and public administration jobs with their requirement of citizenship, as well as more numerous and diverse possibilities to travel abroad from the more affluent capital region, could explain this result.

4.2 Dealing with (some) time-variant regressors

In this sub-section, we address the problem of using time-variant variables, which are measured at the moment of the survey, to explain decisions made by the respondents in the past. As our survey does not contain information on the past values of the individual-level variables, we resort to instrumental variable (IV) techniques. Our objective is to find variables strongly correlated with a time-variant regressor that would have an effect on the likelihood of naturalisation only through the time-varying regressor. We are able to find such predictors for the individual years of education variable. In addition, we use historical values (and other contextual variables) to predict the two municipality-level regressors - the rate of unemployment and the share of non-citizens.

Our data contain information on mother's and father's years of education, which we use as instruments for a respondent's own years of education. We expect parental education to be highly correlated with own (childrens') education, but to have no direct effect on the naturalisation behaviour of the children. The sudden nature of the introduction of non-citizens status in 1995 would minimise any long-term influence of parents on the children's views about naturalisation. This would be particularly true for older respondents, whose parents may no longer be alive, or former migrants, whose parents live outside Latvia.

To predict the municipality (NUTS-5) rate of unemployment and the share of non-citizens in 2007, we use historical data for 1997.²¹ Note that the year 1997 precedes the first large wave of applications for Latvian citizenship (1999–2000) and, therefore, is well suited to explain early naturalisations. An additional instrument for the municipal rates of unemployment is the geographical distance to the country's centre of economic activity – the capital (Riga). An additional instrument for the municipal share of non-citizens is the number, in 1970, of major manufacturing sites or factories. The rationale for the latter is the fact that the Soviet migrants – today's non-citizens – were industrial workers 'sent' by central planners to work in particular industries and factories.²²

To estimate a multinomial probit model with endogenous regressors, we use a two stage residual inclusion (2SRI) approach – an instrumental variable technique suitable for non-linear models (see, e.g., Terza et al. (2008) and Ivlevs and King (2012)). In the first stage, the endogenous regressor is OLS-regressed on the instruments, as well as all other controls present in the structural (second stage) equation. In the second stage, we run a multinomial probit regression, where the set of regressors includes the first-stage regression predicted residuals, the endogenous regressor, and the same set of individual-level and contextual controls as in the first stage. An important advantage of the 2RSI estimation is that the estimated coefficient of the first stage residuals represents a direct test for the exogeneity of the potentially endogenous variable (Bollen et al. 1995). If the coefficient is not significantly different from 0, one accepts the null hypothesis that the potentially endogenous regressor is exogenous and the model should be estimated with multinomial probit.

To check whether the instruments are relevant, we will use the standard F-test of excluded instruments. F-test values higher than 10 would indicate that our instruments are relevant. To check whether the instruments are exogenous, we will implement the over-identification test for non-linear models suggested by Bollen et al. (1995). The test compares the likelihood ratios of the second stage equation (which includes the endogenous regressor, the first stage predicted residuals and all control variables) estimated with and without one instrument; an insignificant LR test statistic would indicate that the instruments are exogenous.

We perform three 2RSI estimations – one for each of the three time-variant regressors. Table 4 reports the marginal effects for the variables on interest. In the case of education (upper panel), the instruments (mother's and fathers' education) are relevant and exogenous: the F-statistic is well beyond the commonly accepted threshold value of 10, and the LR test statistic is insignificant. However, estimating the model with 2SRI, we obtain insignificant first stage predicted residuals, implying that the multinomial probit, rather than 2SRI, estimation should be used. Referring back to Table 3,

Table 4 Dealing with time-variant regressors: Two stage residual inclusion (2SRI) estimation marginal effects

	Not willing to naturalise	Plans to naturalise in the future	Naturalised less than 5 years ago or currently naturalising	Naturalised more than 5 years ago
<u>EDUCATION</u>				
Years of education	-0.054 (0.035)	-0.017 (0.034)	0.022 (0.023)	0.049 (0.038)
First stage residuals	0.037 (0.037)	0.020 (0.037)	-0.017 (0.024)	-0.040 (0.041)
<i>Instruments</i>	1) mother's years of education; 2) father's years of education			
<i>Instrument relevance</i>	1 st stage coefficients: mother's education 0.167***, father's education 0.137** R ² of excluded instruments 0.082; F-stat 22.22***			
<i>Instrument exogeneity</i>	LR test 0.552			
<u>LOCAL UNEMPLOYMENT RATE</u>				
Unemployment rate in 2007	-0.001 (0.020)	0.007 (0.016)	-0.051*** (0.012)	0.045*** (0.016)
First stage residuals	-0.047** (0.024)	-0.006 (0.022)	0.081*** (0.020)	-0.028 (0.029)
<i>Instruments</i>	1) unemployment rate in 1997; 2) distance (km) to the capital Riga			
<i>Instrument relevance</i>	1 st stage coefficients: unemployment rate in 1997 0.481***, distance to Riga 0.008*; R ² of excluded instruments 0.572; F-stat 69.56***			
<i>Instrument exogeneity</i>	LR test 0.831			
Unemployment rate 1997 (MNP)	0.002 (0.009)	0.006 (0.008)	-0.032*** (0.007)	0.024*** (0.009)
<u>LOCAL SHARE OF NON-CITIZENS</u>				
Share of non-citizens 2007	-0.002 (0.006)	-0.003 (0.006)	0.017*** (0.006)	-0.012* (0.007)

Table 4 Dealing with time-variant regressors: Two stage residual inclusion (2SRI) estimation marginal effects (Continued)

First stage residuals	0.002 (0.014)	0.019 (0.013)	0.001 (0.015)	-0.022 (0.018)
<i>Instruments</i>	1) share of non-citizens in 1997; 2) number of major factories in 1970			
<i>Instrument relevance</i>	1 st stage coefficients: share of non-citizens in 1997 0.490***, major factories in 1972 0.835***; R ² of excluded instruments 0.762; F-stat 678.81***			
<i>Instrument exogeneity</i>	LR test 0.124			
Share of non-citizens 1997 (MNP)	-0.002 (0.003)	-0.001 (0.003)	0.010*** (0.003)	-0.007* (0.004)

Note: * p < 0.10, ** p < 0.05, *** p < 0.01. Robust standard error clustered at municipality level in parentheses. MNP – multinomial probit estimation. All regressions include the same variables as in Table 3.

we thus conclude that an extra year of education decreases the non-willingness to naturalise and increases the likelihood of recent naturalisations.

The middle panel reports the results for the local rate of unemployment. The instruments (unemployment rate in 1997 and distance to the capital) pass the relevance and exogeneity tests, and the first stage predicted residuals are statistically significant for several outcomes of the dependent variable, suggesting that the 2RSI estimation is preferred. The 2SRI results confirm that higher local unemployment acted as an incentive for early naturalisations: a high (low) local unemployment rate is associated with early (recent) naturalisations. As a sensitivity check, we estimate a multinomial model which uses the local 1997 unemployment rate as a regressor (instead of the local 2007 unemployment rate) rather than an instrument for the 2007 rates. The results, presented at the bottom of the middle panel of Table 4, are consistent with the 2SRI estimation – higher unemployment in a particular locality in 1997 is associated with a higher probability of early naturalisations and a lower probability of recent naturalisations.

Finally, the lower panel of Table 4 reports the results for the local share of non-citizens. Again, the instruments (the share of non-citizens in 1997 and the number of major factories in 1970) pass the relevance and exogeneity tests. However, the first stage residuals in the 2SRI estimation are insignificant, implying that the multinomial probit estimation should be used. Referring to Table 3, we thus conclude that higher local share of non-citizens reduced the likelihood of early naturalisations and increased the likelihood of recent naturalisations. The conclusion is reinforced by a multinomial probit model which uses the 1997 local non-citizenship rates as a regressor instead of 2007 rates (bottom of lower panel in Table 4).

Finally, as a robustness check, we have estimated a more restricted binary model, where the dependent variable is equal to one if the respondent reports non-willingness to naturalise and zero otherwise (naturalised earlier, currently naturalising and willing to naturalise in the future). The results, available upon request, are consistent with the four-outcome multinomial probit estimation. In particular, the likelihood of reporting non-willingness to naturalise increases if the respondent is old, male, single, low-educated, former migrant and has a deficient knowledge of the Latvian language.

5. Conclusions

This paper has studied the willingness to acquire Latvia's citizenship by 'non-citizens' – the former Soviet migrants and their children born on the territory of Latvia during Soviet times. The "non-citizen" status has a number of serious disadvantages, ranging from the inability to participate in the country's political processes to the exclusion from working freely in the EU labour markets. It is, therefore, of interest why a significant number of "non-citizen" opt to keep this status, although they have the opportunity to obtain full citizenship, and why others choose to become citizen. Using data from a representative 2007 survey of 624 former and current non-citizens in a multinomial probit model reveals characteristics of those who want to remain non-citizen, and of those who have obtained citizen status, are in the process of obtaining it or plan to do so in the future. Our findings reveal two broad categories of motives (instrumental and emotional) for desiring (or not desiring) citizenship, as well as obstacles that stand in the way of obtaining it.

Among *instrumental* motives, we find that younger people are more likely to opt for obtaining citizenship, as it brings advantages on the job market and allows for visa-free travel to selected countries. People who work in the public sector tend to have become citizen early on – in order to preserve their public sector position. A positive and significant correlation between the willingness to naturalise and emigration intentions confronts us with another, rather disturbing, instrumental motive – obtaining citizenship signals a preparation for “escape” rather than a manifestation of integration. We also find that a higher municipality unemployment rate is associated with a higher rate of early (more than 5 years ago) naturalisations. This is interpreted as an attempt to make oneself more attractive on the difficult labour market.

Turning to *emotional* motives, we find notable differentiation along gender lines, with males more likely to remain non-citizen – possible explanations ranging from a lower level of civic engagement relative to females to outright rejection of the naturalisation procedure itself. Next, a high share of non-citizens in a respondent’s municipality is associated with lower probability of early naturalisation, suggesting possible local peer effects. Former migrants (people who themselves immigrated into Latvia earlier, mostly from Russia, Ukraine and Belarus) are more reluctant to obtain citizenship – possibly stemming from a relatively stronger ideological orientation that questions the legitimacy of the state of Latvia. However, former migrants may also keep stronger links with their relatives and friends in the post-Soviet space. For frequent travellers between Latvia and Russia & CIS there are some advantages in remaining a non-citizen that relate to travel documents and their costs – showing that emotional and instrumental motives can be rather entwined.

Several factors point toward *obstacles* to naturalisation. First, the negative correlation between education and non-willingness to naturalise, confirmed by the instrumental variable analysis, suggests that the naturalisation procedure may appear complicated and discouraging to people with lower levels of education. A positive correlation between age and non-willingness to naturalise also supports this conjecture – the elderly might perceive the naturalisation procedure as particularly difficult. Second, a lack of proficiency in the state language (Latvian) – the single most significant correlate of the willingness to obtain citizenship – is another obstacle. The naturalisation process, after all, requires the candidate to take a language exam. Third, people living outside the capital’s metropolitan area are likely to be more recent applicants for Latvian citizenship, possibly reflecting slow diffusion of information about naturalisation possibilities in rural areas.

Endnotes

¹ The data on the foreign born are from the UN World Migrant Stock Database. The data on minorities and non-citizens are from the Central Statistical Bureau of Latvia.

² In this context, see Masella (2011), who shows that, unlike often suggested, ethnic diversity by itself does not necessarily impact negatively on economic development and political stability. In this paper, we, however, analyse a special case of ethnic diversity, namely obstacles and disincentives to the attainment of citizenship - be they real or imagined.

³ Note, however, that it is unclear whether ascending to Latvian citizenship would automatically increase the income and employment opportunities. Devoretz and

Pivnenko (2005) and Devoretz (2008) argue that the decision to naturalise and the labour market impact of naturalisation may be endogenous: if people expect a premium from becoming a citizen, they may acquire more education and linguistic skills (increasing their wage and employment prospects) and integrate socially and politically in anticipation, which would in turn facilitate their decision to become a citizen.

⁴ Note that this paper does *not* address the question why the non-citizenship status was introduced in the first place. There are several explanations for the existence of the strict citizenship legislation in Latvia – from “threat to the national identity and language” and “correcting historical injustice” (Barrington 2000, Muiznieks 2005) to rent-seeking and “ethnic democracy” (Smith 1996, Smooha 2001, Hughes 2005).

⁵ Source: Citizenship Law of the Republic of Latvia.

⁶ In addition, despite the fact that the post-independence born children are entitled to citizenship of Latvia upon request of the parents, some non-citizens still prefer to register their post-independence born children as non-citizens (International Helsinki Federation of Human Rights 2007, p.104).

⁷ We also checked whether the business cycle might play a role in citizenship aspirations and did not find any evidence for this. A peak in applications in 1999 corresponds to the lowest GDP growth rate (3%) between 1996 and 2007, while the peak of 2004–2005 corresponds to relatively high GDP growth rates of 9–10%. The first two periods of relatively low citizenship application activity in 1995–1998 and 2000–2003 were accompanied by relatively high GDP growth rates (4–8%), while the last slowdown in citizenship applications (2008–2010) was accompanied by negative GDP growth rates.

⁸ We provide evidence from these more qualitative studies for two reasons: 1) Both are available only in Latvian and therefore not easily accessible for international audiences. The studies, however, are very informative and merit a wider audience; 2) The two qualitative studies complement our paper in that they provide answers to *why* the non-citizens do or do not want to naturalise.

⁹ The disabled, orphans, people with very low income, the unemployed, pensioners, pupils and students are either exempt from paying the fee or pay a reduced rate (3 LVL or 5 EUR). Source: Naturalisation Board of the Republic of Latvia.

¹⁰ The non-citizens still need visas to go to Ireland and the UK. They also need work permits to work in any EU country.

¹¹ For example, the cost of a single entry visa to Belarus for citizens and non-citizens of Latvia was: 15 USD and 10 USD respectively in 2002–2003; 20 USD and 15 USD respectively in 2004; 32 USD and 20 USD respectively in 2005–2007. When Latvia joined the Schengen area in 2008 the dual price system ended and a common price of LVL 18 (EUR 25.4) has, since then, been charged for citizens and non-citizens alike.

We are grateful to the Embassy of Belarus in Latvia for providing this information.

¹² Note, however, that intentions to naturalise may not always lead to actual naturalisations.

¹³ We have considered estimating the model with multinomial probit, multinomial logit and nested logit, and have decided in favour of the multinomial probit – for the following reasons. First, the multinomial probit model, unlike its logit counterpart, allows the relaxation of the strict assumption of independence of irrelevant alternatives (IIA). Second, the nested logit model, although also allowing the relaxation of IIA, requires the specification of a restricting decision tree. In addition, the variables

affecting each level of the decision tree in the nested logit model have to be different; this means that we would have to assume that the set of variables affecting, e.g., the decision to naturalise vs. not to naturalise is different from the set of variables affecting, e.g., the time of naturalisation (long ago, recently, in the future) - an assumption that, in the absence of theoretical or empirical support, we would like to avoid. Finally, alternative-specific variables are typically used to estimate a nested logit model; however, all variables at our disposal are respondent-specific. Interestingly, the absence of alternative-specific variables may also lead to unreliable results in the multinomial probit estimation Keane (1992), although such exclusion restrictions are not formally required for the identification of the multinomial probit model. Taking these considerations into account, the multinomial probit emerges as the option with the lowest number of restricting features.

¹⁴ The emigration intentions dummy was constructed using four possible answers to the emigration intentions question. The dummy is set equal to zero if the respondent answered “very low likelihood” and one if any other answer was provided (“rather low”, “rather high”, very high”). We have also experimented with setting the emigration intentions dummy equal to one if the respondent reported 1) “very high” and, respectively, 2) “very high” or “rather high” likelihood of emigration; the estimated coefficients had the expected sign but were, at best, marginally significant.

¹⁵ Interestingly they show that marriage does not have any statistically significant effect on the probability of already having acquired citizenship. Our analysis confirms this finding too.

¹⁶ However, it cannot be ruled out that the public sector variable is endogenous: the acquisition of citizenship may help people find a job in the public sector. Unfortunately, our survey does not contain information on whether the former non-citizens worked in the public sector prior to naturalisation.

¹⁷ The finding is robust to the inclusion of additional dummy variables capturing different income levels, as well as to a continuous income variable.

¹⁸ Given the high significance of the language dummies, we checked how robust our results are for the subsamples of respondents with relatively poor and relatively good knowledge of the State language. To preserve the degrees of freedom in these smaller subsamples, we estimated a more restricted binary probit model predicting the probability of non-willingness to naturalise versus all other alternatives. For ‘poor language’ speakers, the results are very similar to the full sample estimation; in particular, age, gender, marital status, education and the former migrant status are all significant predictors on the non-willingness to naturalise. For ‘good language’ speakers, however, only the age variable is a significant (and positive) predictor of the non-willingness to naturalise. This suggests that the results are largely driven by the ‘poor language speakers’ sub-sample.

¹⁹ In addition, it should be noted that both language proficiency and citizenship acquisition may serve the purpose of seeking advantages on the Latvian labour market: better advancement and earnings within a given occupation, as well as gaining entry to occupations that require citizenship and, by implication, language proficiency; see Chiswick and Miller (2010) on the two-channels of labour market advantage linking earnings to human capital skills.

²⁰ Note that causality could, in principle, run in the opposite direction: localities with lower share of non-citizen (in 2007) may be that way because non-citizen naturalised early on – thereby reducing the incidence of non-citizenship thereafter.

²¹ The historical data, however, are available only at a higher level of regional aggregation (district (NUTS 4) rather than municipality (NUTS 5) level).

²² The information on the number of major industrial sites/factories comes from the 1970 publication of the Academy of Sciences of the Latvian SSR “The problems of economic development of the Latvian SSR [Problemy razvitiya narodnogo hozyajstva Latvjijskoy SSR]”, Riga, Latvia.

Additional file

Additional file 1: Online appendix.

Competing interests

The IZA Journal of Migration is committed to the IZA Guiding Principles of Research Integrity. The authors declare that they have observed these principles.

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