Citizenship Laws and International Migration[*]

Graziella Bertocchi

Università di Modena e Reggio Emilia, CEPR, CHILD and IZA

Chiara Strozzi

Università di Modena e Reggio Emilia

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ABSTRACT

We investigate the origin and evolution of the legal institution of citizenship. We compile a data set across countries of the world which documents how citizenship laws have evolved from the jus soli and the jus sanguinis traditions established in the course of the 19th century. After World War II, citizenship laws are shown to be shaped by migration flows and the legal tradition, with a tendency towards convergence towards an intermediate degree of inclusiveness. We also control for the influence of additional factors such as the degree of democracy, border stability, the welfare burden, cultural characteristics, and colonial history.

JEL Classification Numbers: P16, K40, F22, O15.

Key Words: citizenship laws, international migration, legal origins, democracy, borders.

1 Introduction

Each country of the world has established a complex system of legal rules that govern the attribution of citizenship. Because of the increasing pressure of international migration, citizenship laws have moved to center stage on policy agendas. By regulating the inclusion of newcomers within societies that exhibit unprecedented diversity, these legal institutions represent powerful tools to promote social cohesion and preserve common traditions, with implications not only for immigration policy, but also for labor markets, welfare programs, and international relations.

We investigate the origin and evolution of the legal institution of citizenship from a political economy perspective with a specific focus on the laws that regulate the access to citizenship at birth. Such laws come from two broad traditions, common and civil law. The former applies the jus soli (i.e., through birthplace) principle, according to which the child of an immigrant is a citizen, as long as he is born in the country of immigration. The United States are the archetypal example of such an arrangement. The latter applies the jus sanguinis (i.e., through parental descent) principle, according to which a child inherits citizenship from his parents, independently of where he is born. Countries in Continental Europe have traditionally applied this kind of legislation.

Our first goal has been to assemble a new data set covering citizenship laws in a large number of countries which also captures their evolution, starting from legal provisions established in the 19th century or even earlier. During the 20th century, citizenship laws have gone through a process of adaptation, with a marked acceleration after WW2. We investigated which factors can account for the observed patterns of evolution, and found a systematic influence of migration flows and the original laws, but also of the degree of democracy, border stability, the welfare burden, cultural characteristics and colonial history.

This paper represents a first application to the question of citizenship policy of the comparative-legal approach. More generally, it contributes to a research program which has focused on the historical determinants of institutions. Moreover, it adds to research on international migration in a long-term perspective. It is therefore related to several separate branches of the literature.

The stream of research into which this paper perhaps fits more naturally is the literature on legal theory initiated by La Porta et al. (1998). The basic premise of this research line is the

recognition that laws in different countries are adopted or transplanted from a few legal traditions and that the resulting legislative bodies reflect both the influence of the legal origin and the subsequent revision specific to individual countries.[1] We add to this stream by focusing on the determinants of the dynamic adaptation of nationality rules.

The historical experience of international migration, and its relationship with policy and institutions, has recently been the focus of a number of studies. O'Rourke (1991), Hatton (1995, 2004), Taylor and Williamson (1997), Hatton and Williamson (1998, 2005a) and Chiswick and Hatton (2003) examine world migration over the past centuries, exploring its determinants and its impact on the host countries' labor markets and income distribution. Timmer and Williamson (1998), Hatton and Williamson (2004) and Bertocchi and Strozzi (2005) study the immigration policies enacted in the 19th century. Recent developments in the debate on immigration are surveyed by Borjas (1994). Within the literature on the historical determinants of institutions, Engerman and Sokoloff (2002) and Acemoglu et al. (2001) do consider colonial migration as one of the factors shaping institutions and in turn economic development. A related stream of the literature has modeled the political economy of migration, with contributions by Razin et al. (2002), Benhabib (1996), and Gradstein and Shiff (2004), while O'Rourke and Sinnott (2003) and Mayda (2005) estimate voters' attitudes towards immigration. None of these papers, however, considers the role of citizenship laws.

Recent work by Alesina and Spolaore (1997) and Bolton and Roland (1997) on the optimal determination of the size of nations, and thus state borders, is also relevant to our approach, both because country size in this literature is the same as population size and is potentially influenced by migration and by the legal status of immigrants, and also because borders play an important role on the determination of citizenship rules.

The rest of the paper is organized as follows. Section 2 reviews the historical and legal background for the issues we raised. Section 3 presents a simple theoretical framework for thinking about the determinants of citizenship laws. Section 4 describes our data set on citizenship laws around the world. Section 5 illustrates our empirical strategy, which is then applied in Section 6. Section 7 concludes and indicates directions for future research. The Data Appendix collects

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[1]While La Porta et al. (1998) focus on legal protection of investor rights, legal theories have been tested in other areas, such as labor regulation in Botero et al. (2004) and the quality of government in La Porta et al. (1999).

information about the data employed, other than those in the original data set on citizenship laws.

2   Historical and legal background

Citizenship is a legal institution that designates full membership in a state and the associated rights and duties. There are several ways to acquire citizenship: at birth, by naturalization, by marriage. While we will consider all aspects of citizenship acquisition, we focus primarily on citizenship acquisition at birth, since these specific provisions can be linked directly to the two well-defined bodies of common and civil law, the first applying the birthplace principle (jus soli), the second the bloodline principle (jus sanguinis). Therefore we concentrate on citizenship acquisitions by second-generation immigrants, i.e., the children born of first-generation immigrants in the immigration country. In jus soli countries, an immigrant's child is automatically a citizen, while in jus sanguinis countries a child inherits citizenship from his parents independently of birthplace. Were a population and a territory to match each other exactly, the above distinction would be irrelevant but it does make a difference in the presence of international migration. In particular, regimes associated with jus soli are presumed to be more inclusive towards newcomers, while regimes based on jus sanguinis tend to embed an ethnic character.

In 18th century Europe jus soli was the dominant criterion, following feudal traditions which linked human beings to the lord who held the land where they were born. The French Revolution broke with this heritage and with the 1804 civil code reintroduced the ancient Roman custom of jus sanguinis. Continental modern citizenship law was subsequently built on these premises. During the 19th century the jus sanguinis principle was adopted throughout Europe and then transplanted to its colonies. By imitation, Japan also adopted jus sanguinis in this phase. On the other hand, the British preserved their jus soli tradition and spread it through their own colonies, starting with the United States where it was later encoded in the Constitution. By the end of the 19th century, the process of nation-state formation and the associated codification effort, were completed in Continental Europe, while at the same time the revolutionary phase was over in those countries that had been the subject of the earlier colonization era and 19th century colonization had extended the process of transplantation of legal tradition to the rest of the world. Therefore, at that stage, most countries of the world had established specific provisions regarding citizenship

acquisition within a relatively well-developed legal system, with jus soli being the norm in common law countries, and jus sanguinis regulating citizenship law in most civil law countries. However, the next century witnessed a continuous process of transformation of citizenship laws across the world, with a marked acceleration after WW2.

Political scientists and legal scholars have long acknowledged the importance of citizenship rules and have made significant contributions toward the understanding of the factors that shape them. In the face of the increasing scale and pace of international migration, the pioneering work by Marshall (1950), which defined membership within a bounded nation-state equipped with a common culture, has quickly become outdated. Modern sociopolitical theories have pointed to two main factors as the determinants of citizenship laws dynamics: legal tradition, and the disconnection between territory and population which is provoked by migration flows (Weil, 2001). When a legal tradition is perceived to fulfil the interest of the state in terms of migration, the core of national legislation is maintained. In the classic lands of immigration - the US, Canada and Australia - jus soli was therefore sustained for a protracted period of time, while Continental Europe long relied on jus sanguinis to maintain links with the descendants of its emigrants. However, the historical experiences of immigration and emigration gradually affected the original set of rules, with a tendency toward convergence which accelerated after WW2. Through a survey of 25 nationality laws, Weil (2001) shows that most jus soli countries have indeed become more restrictive while some jus sanguinis countries have added jus soli provisions. For instance, traditional jus soli countries such as Australia and the UK, pressed by unsustainable inflows of migrants, have turned toward more restrictive terms to gain citizenship by birthplace. By contrast, the presence of a growing immigrant stock pushed jus sanguinis countries in Europe toward the adoption of a more inclusive concept of citizenship. While France anticipated this tendency by almost two centuries, most other European countries in more recent days have at the very least formally included double jus soli (i.e., automatic citizenship acquisition for third-generation immigrants) in their legislation. On the other hand, the UK and Ireland, as countries of emigration, progressively added sanguinis provisions, while the presence of a large stock of emigrants may exert opposite pressure to restrict the prerequisites to acquire citizenship by descent. The overall tendency toward convergence around a combination of jus soli and jus sanguinis provisions inevitably occurs, again according to Weil, as long as a country starts perceiving itself as a

country of immigration rather than of emigration, and provided that the following two additional conditions are satisfied: consolidation of democratic values and stabilization of state borders. A commitment to democracy leads naturally to a more assimilative attitude toward aliens, while the stabilization of borders tends to reduce the pressure to preserve a national identity through jus sanguinis. Achieving border stability after the fall of the Berlin wall was a decisive factor in pushing Germany towards the long-delayed adoption of jus soli elements in the face of a large stock of disenfranchised immigrants. Likewise, the attempt to preserve an ethnic heritage through jus sanguinis has played a crucial role in countries such as the former socialist in Eastern Europe and Asia, which have gone through a recent period of turmoil. The same tendency had emerged earlier on during the decolonization phase. To sum up, convergence of citizenship laws to a mix of jus soli and sanguinis has been linked to the presence of a large immigrant stock, stable borders and a consolidated democracy, and is prevented when one of these conditions are not satisfied.

An additional factor that has been the subject of debate is the influence of national character and culture. The theory advanced by Brubaker (1992) focuses on France and Germany as two antagonistic kinds of nationhood, the former more assimilationist, the latter more ethnocentric, which also differ in their definitions of citizenship. German citizenship law has always been restrictive toward non-Germans, while France, confident in transforming immigrants into French people, was expansionist toward them. Weil (2001), however, does not find evidence of the existence of a causal link between national identity and nationality laws.

Finally, since citizenship rights are linked to the ability to enjoy welfare benefits, and to determine them through voting, citizenship policy has been associated with the nature of the welfare state, with a large government - as in Germany, or the Scandinavian countries - representing a potential obstacle to the application of jus soli (Joppke, 1998). This argument, however, must be weighted against the potential gain, for countries with expensive pension systems, from the impact of relatively young immigrants on the average age of the population. The relative thickness of the concept itself of citizenship, if compared to residency, is a related, potentially relevant consideration: in the US, for instance, citizenship is relatively thin, in the sense that it confers few additional benefits if compared with residency.

In the next subsections we will discuss a few specific cases in more detail, drawing mostly from Joppke (1998) and Aleinikoff and Klusmeyer (2000, 2001).

The United States As previously mentioned, jus soli was encoded in the US Constitution through the 1868 Fourteenth Amendment, with the specific purpose to protect the birthrights of black slaves. Consistently with its history as a country of immigrants, and with a general positive attitude toward economic liberalism, the US approach is still remarkably inclusive in all its aspects, ranging from immigration policy to naturalization requirements. Debate about possible restrictions did arise recently, but never led to actual change.[2] In particular, jus soli came under attack in the 1980s regarding its applicability to the children of illegal immigrants. A relatively young and thin welfare state contributes to the fiscal sustainability of jus soli in this country. As a result of these combined elements, current citizenship law in America differs considerably from that of another classic land of immigration such as Australia, where jus soli had similarly been introduced by the colonists. In the postwar period, Australia went through numerous legislative and administrative reforms. Jus soli survived until 1986, while afterward a person born in Australia must have at least one parent who is either an Australian citizen or a permanent resident in order to acquire citizenship.

Latin America In the face of a civil law tradition which had been transplanted by the European powers, this area has followed a rather peculiar pattern. At independence, most of the incipient states chose jus soli as a way to break with the colonial political order and to prevent the metropoles from making legitimate claims on citizens born in the new countries. Jus soli was encoded in the Constitution of Brazil in 1824, of Venezuela in 1830, of Argentina in 1853. Therefore, most of Latin America was already a jus soli country before the 19th century immigration waves began. Jus soli is still the prevalent rule in the area, even if it is no longer attracting immigrants. Mexico represents a special case where jus soli was also adopted in the 1814 insurgent Constitution, but was then abandoned in 1836, only to come back to stay, in combination with jus sanguinis, with a Constitutional Amendment in 1937. Furthermore, in 1997 citizenship acquisition through jus sanguinis was restricted to children of Mexican parents born in Mexico even though, at the same time, Mexican emigrants were allowed to keep their Mexican nationality even after naturalizing abroad. The latter provision was introduced to facilitate the integration of Mexican emigrants in the countries of destination, without severing their bond with their homeland.

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[2]In his analysis of Mexican immigration, Huntington (2004) has criticized current nationality regulations on the grounds that they represent a "devaluation of citizenship".

The United Kingdom British nationality law has been deeply affected by its imperial experience. Because of its colonial history, the concept of nationality in the UK was, up to WW2, particularly extensive, since all subjects of the British Empire had equal access to British citizenship simply by establishing residence in the UK. The 1948 Nationality Act created the status of Citizen of the United Kingdom and Colonies for people with a close connection to the UK and its colonies. Following a postwar wave of colonial immigration, this open-door policy was progressively restricted, even though special status is still attributed to citizens of the British Commonwealth. Redefinitions of national citizenship have been effectively employed, since the 1980s, as a form of selective immigration policy. The 1984 British Nationality Act restricts jus soli by establishing that a child born in the UK qualifies for British citizenship only if at least one parents is a British citizen or resident.

France The emergence of the nation-state in Continental Europe was the main factor that shaped citizenship law in this area. The revolutionary experience was particularly important for France, where jus sanguinis was first introduced with the 1804 Civil Code and maintained for the entire course of the 19th century, even though military consideration introduced early on elements of jus soli. In order to secure immigrants' children born in France to the draft, in 1889 double jus soli became automatic. After WW2, large-scale immigration, especially from North Africa, raised concern regarding assimilation. Citizenship issues and the rights of immigrants became the object of heated debate in French politics. In 1993 Chirac introduced a restrictive revision to the legislation, that required a formal citizenship request from second-generation immigrants. With the Left regaining political power in 1997, however, these restrictions were considerably revised, with the automatic assignment of citizenship at age 18 to those immigrants' children born in France who had neither requested, nor declined it. The case of France is frequently compared with Germany. Brubaker (2002) has influentially argued that the different path followed by these countries has been shaped by their cultural difference, with France sticking to its tradition of inclusive, state-constituted nation, and Germany to its exclusive, non-statal, ethnic identity.

Germany The single most relevant event in the history of German citizenship law is certainly the fall of the Berlin wall, which paved the way for the achievement of stable national borders. Prior to that, the massive guest-worker immigration of the postwar period, mostly from Turkey

but also from Southern Europe, had started to put under strong pressure, but to no avail, the original Wilhelminian citizenship law of 1913, which had established strong sanguinis ties with German overseas emigrants. With the foundation of the GDR and the consolidation of the Eastern Block, Germany found itself in the paradoxical situation of having to live with a large population of disenfranchised foreigners born on its soil at home, and at the same time with millions of ethnic Germans living behind the Iron Curtain. Achieving border stability was a decisive factor in pushing Germany towards the long-delayed adoption of jus soli elements. A first step in this direction was the new Foreigner Law in 1990, which turned naturalization from the discretionary exception into the rule. A major overhaul of the legislation, following an intense political struggle, was finally approved in 1999. Jus soli is now the norm in Germany (under the mild requirement that one parent has lived in the country for eight years). In the evaluation of the German experience, other factors that may have delayed the introduction of jus soli are, as previously suggested, the strong ethnic-genealogical character of the German national identity, and the thick nature of the German welfare state. The latter aspect may have played a role in shaping the evolution of citizenship policies in several other European countries and especially the Scandinavian ones, where jus sanguinis was functional to the large past emigration flows, but had recently to adapt to the quickly changing conditions, especially for high-immigration Sweden. As documented by Weil (2001), restricted forms of double jus soli are de facto applied, by now, in the vast majority of European countries, which recently adapted their legislation to the globalization of international migration and its increasing impact on Europe. In particular, in the entire EU, with the exceptions of Austria, Greece and Luxembourg, access to citizenship by second and third generation is facilitated.

Decolonization Postwar decolonization had a major impact on citizenship rules applied around the world, and not only through the indirect impact on the metropolitan countries we previously examined. The vast majority of the African colonies that were subject to civil law countries practicing jus sanguinis stuck to this principle after independence. On the other hand, many former UK colonies rejected the British tradition of jus soli and switched to an often strongly ethnically tinged version of jus sanguinis. For instance, Sierra Leone's 1961 Constitution established that citizenship is transmitted only by descent and only to children whose father and a grandfather were Sierra Leoneans of African-Negro descent. In situations where instability was pushed to an extreme

degree by the young age and the arbitrary borders of these countries, and was compounded with deep ethnic division, jus sanguinis tended to prevail as a way to control more easily the formation of national entities. At the same time, however, the associated exclusive notion of ethnic and tribal identity caused enormous problems in countries where colonial rule had left shaky democratic institutions. To these days, ethnic conflict lies at the roots of a chronic manipulation of citizenship rules in favor of one ethnic group over others. The 1964 Congolese Constitution, in an effort to exclude Rwandan immigrants, recognized citizenship only for persons whose parents were members of one of the tribes established within the territory by 1908. In 1981 Mobutu signed a new law on nationality requiring an ancestral connection to the population residing in the territory as far back as 1885. Marginalization and de-facto statelessness of significant strata of the population is the unavoidable outcome of these policies.

The disintegration of the USSR Another major wave of citizenship law codification followed the disintegration of the USSR. The area had been sealed toward international migration but, as for all empires, there had been considerable migration within. The Soviet Union had occupied Estonia, Latvia and Lithuania in 1940. During the following decades millions of Russians were encouraged to settle in Latvia and Estonia (less so in Lithuania) in order to Russify them. To these days, large Russian-speaking, stateless, sizeable minorities are still present. After independence, the new citizenship laws of these three states reflected this heritage with an emphasis on jus sanguinis as the basis for acquiring citizenship. Lithuania, which was the least affected by Soviet immigration policy, showed the most inclusive, and Latvia the most exclusive attitude toward ethnic Russians. The issue for these states was how to balance a need to reconstitute their national identity around an ethnic model, and a commitment to democratic values with respect to the rights of minorities. Estonian and Latvian laws were sharply criticized by international organizations on the grounds of human rights. In the anticipation of EU integration, these recommendations were indeed fulfilled in the more recent legislation of the Baltics, while most other countries of the area still persist with discriminatory policies. By contrast, for the case of the Russian Federation, the salient fact in shaping current citizenship policy is the perception that many of its citizens are outside its borders, spread around the former regions of the USSR. Again, this perception as a country of emigrants pushes toward the persistence of jus sanguinis as the main principle, even though small concessions to jus soli have been made.

3 A simple theoretical framework

This section develops a simple model for thinking about the determinants of citizenship laws. The observed degree of inclusiveness of the laws is jointly determined by a number of demand and supply factors. A downward-sloping demand for inclusiveness i^d, on the part of the migrants, can be modeled as follows:

$$i^d = -\alpha p_i + \beta m$$

where p_i is the price of inclusiveness and m is net migration into the country. The price of being a citizen can be thought of as the balance of the costs and benefits associated with membership into the national community. Citizenship provides various benefits, starting with the right to vote. Depending of the specific provisions, citizenship may also increase one's ability to obtain a visa for a relative, guarantee legal protection in case of criminal charges, allow unrestricted travel and better employment opportunities. There are also costs to citizenship, such as the military draft, renunciation of the original citizenship, as well as the pecuniary and non pecuniary costs that may be required for naturalization or for recognition at the age of majority. The latter may involve language and culture tests, waiting periods, and a commitment to avoid activities leading to disqualification. The higher the net costs, the smaller the demand for inclusiveness expressed by migrants. Moreover, the position of the curve in the $i^d - p_i$ space can be influenced by the current inflows of migrants, m. In turn, the supply of inclusiveness on the part of the natives can be modeled as:

$$i^s = \gamma o + \delta m + \varepsilon d + \zeta b + \eta g + \vartheta h$$

where o is the original degree of inclusiveness as reflected by the legal tradition, d is the degree of democracy, b is the degree of border stability, g is the size of the welfare state, and h captures cultural characteristics such as religion, ethnolinguistic fragmentation, etc.. The factors we have selected reflect the political-economic analyses previously summarized in Section 2. Suppose, for instance, that migration increases. This would shift supply to the right or to the left, depending on the attitude of the natives. An inclusive original legislation would push supply to the right, relative to countries with a more exclusive tradition. Similarly, a more democratic country should also favor the assimilation of foreigners on an equal rights basis. More border stability should also

lead to more inclusiveness, since instability tends to favor the persistence of jus sanguinis, or its introduction when jus soli was the rule. The size of the welfare state and cultural factors may also affect the position of the supply schedules, as previously discussed.

In the framework we have derived, the equilibrium degree of inclusiveness, i^e, will be determined by the supply factors we have discussed above, while demand will have no role except on the equilibrium price. However, it would also be possible to think in terms of an upward-sloping supply curve. For instance, the more demanding the military duties imposed on the migrants acquiring citizenship, the higher the supply of inclusiveness would be. In this case, the impact of a shift in supply on equilibrium inclusiveness will be jointly determined by the relative slopes of supply and demand. Moreover, our simple setup could also be adapted to accommodate disequilibrium phenomena where demand for inclusiveness could be rationed at a given price. Finally, the demand and supply schedules we presented could be derived from explicit microfoundations. While the development of a fully specified model remains beyond the scope of our empirical investigation, our simple framework suggests a number of testable implications which will be detailed below.

4   The data: Citizenship laws of the world

4.1   Citizenship at birth

The main innovative input in our empirical investigation is the creation of a data set covering current citizenship laws around the world. The principal source for the information we codified is a directory compiled by the Investigations Service of the United States Office of Personnel Management in 2001, which provides synopses of the citizenship laws currently practiced in 190 countries. The sources for this directory were Embassies, the Library of Congress, and the Department of State. We supplemented this information with additional one from the CIA World Factbook (2002), the United Nations High Commission for Refugees (2003) and the survey in Weil (2001).

Starting with citizenship acquisition at birth, which is our principal focus, we attribute to each country an appropriate code for citizenship laws in 2001 and for the citizenship laws at the beginning of the period. We take 1948 as the starting point, even though there were nearly no reforms in citizenship laws during the first half of the century, so that most of the legislation in

place in 1948 had actually been developed much earlier. On the other hand, 1948 predates the decolonization phase and the related legislative reforms. We also coded citizenship laws in the intermediate year 1974, which divides the postwar sample in two subperiods of equal length, where the first fully captures the initial phase of postwar decolonization, while the second witnesses the globalization of international migration flows and its impact on Europe. This classification system allows us to capture the evolution of a country's legislation from the original to the current legal code.

For 2001 and 1974 citizenship laws, we construct three groups of countries, ordered by increasing degree of inclusiveness toward immigrants. Inclusiveness is minimal for countries subject to jus sanguinis (Group 1),[3] while it is maximal for countries subject to jus soli (Group 3).[4] Since, for many countries, the current legislation reflects a mix of jus soli and jus sanguinis, we also introduce an intermediate group, Group 2, that includes all countries where elements of jus soli are recognized, albeit in a restrictive form, and coexist with varying degrees of jus sanguinis.[5] For example, a frequent provision that limits jus soli is double jus soli (i.e., automatic citizenship for the children of those immigrants who were also born in the country). Another is the ability, for a child born in a country were jus sanguinis prevails, to acquire citizenship at some later point (e.g., the age of maturity) subject to either residence requirements or application. Moreover, we interpret as an element of jus soli, that justifies the inclusion of a country within Group 2, the existence of a provision that birth in the country matters for naturalization.

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[3]In the application of jus sanguinis, countries may differ on some factors, for example on the father's vs. mother's right to transmit citizenship by descent, the requirement of citizenship for one or both parents, the relevance of the marital status of the parents. Most of these factors depend on the interaction between local family law and citizenship law. A common exception to the general principle of jus sanguinis is automatic citizenship attribution to children of unknown parents.

[4]Typically those countries that adopt jus soli combine it with jus sanguinis provisions for the children of their citizens born outside of their territory (although limitations to the ability to transmit citizenship acquired in this manner to the next generation usually apply through, for example, residence requirements).

[5]Since we focus on the degree of inclusiveness of the law towards immigrants, our classification does not emphasize how narrowly in turn jus sanguinis can be specifically applied. Examples of restrictions are generational requirements limiting the principle of citizenship by descent to the first or second generations of individuals born and residing abroad, residence requirements for parents, and the requirement that parents must be citizens other than by descent.

Turning to citizenship laws in 1948, we identified only two groups, pure jus sanguinis and pure jus soli countries.[6] We also coded countries according to their legal origin. As previously noticed, our original citizenship laws often but not always coincide with the appropriate legal origin of the countries involved, with jus soli being associated with common law and jus sanguinis with civil law. The main exception to this pattern is - as previously mentioned - Latin America, where most countries adopted jus soli during the first half of the 19th century. From the La Porta et al. (1999) legal origin classification, we retained only the two main families of common and civil law. Therefore, we did not distinguish, within the broader civil law tradition, among the French, German, and Scandinavian versions, since they do not present any significant difference for the issue of citizenship. Moreover, while La Porta et al. (1999) introduce a separate class for socialist-law countries, we assigned them to their own class of common or civil law as it prevailed before the communist period.[7]

Our data set includes those 159 countries for which we were able to collect information on both original and current citizenship law, and for which migration data were actually available for the postwar period.[8] We coded citizenship laws as follows. Citizenship laws in 1948 is a dummy variable which is equal to 0 if a country adopts jus sanguinis while it is equal to 1 if a country adopts jus soli. Citizenship laws in 1974 and in 2001 are two ordinal variables which can take three values: 1 if a country belongs to Group 1 (jus sanguinis), 2 if it belongs to Group 2 (mix) and 3 if it belongs to Group 3 (jus soli).[9]

The differential patterns of evolution that citizenship laws generate in 1948, 1974 and 2001 are summarized by the transition matrices in Table 1, which reveals considerable variations both across countries and over time. The table shows that in 1948 jus soli was the rule in about 42% (i.e., 67 out of 159) of the countries, while jus sanguinis dominated in the remaining 58% (i.e., 92 out of 159). Among the countries that were under jus soli in 1948, we find the United States

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[6]Despite the fact that the legislation in France already contained elements of jus soli in 1948, we assign France to the jus sanguinis group since this more accurately reflects its long-term tradition.

[7]In fact all socialist countries in our sample, with the only exception of Myanmar, come from the civil law tradition. Nevertheless, we did also experience, in the empirical analysis, with a socialist country dummy.

[8]For details on migration data see the Data Appendix, part A.

[9]The variables are ordered according to the degree of inclusiveness of their citizenship policy.

and Canada, all the Oceanian countries, most of Latin America and, within Africa and Asia, the British colonies. Within Europe, only the UK and Ireland belonged to this group. Therefore, in 1948 jus sanguinis predominated in most of Europe, including its Eastern part, and throughout the world in the countries which were subject to other-than-British colonial rule.

By 1974, 31% of the countries had jus soli, 62% jus sanguinis, and 6% had introduced a mixed regime. As of 2001, 23% of the countries apply jus soli, 55% jus sanguinis, 22% a mixed regime. Among the countries that still adhere to the jus soli principle are the United States, Canada, New Zealand, Ireland (which introduced restrictions to jus soli with a June 2004 referendum). UK and Australia, on the contrary, no longer adhere to this principle. Nevertheless, jus sanguinis still predominates, with 69% of the countries in Africa, 83% in Asia, and 41% (down from 94%) in Europe. Indeed, the growing group where a mix of provisions is applied is particularly well-represented in Europe, with 56% of the European countries including the formerly jus soli United Kingdom.

The table also shows that a large number of countries (37%) have started and ended as jus sanguinis, reflecting a pattern of stability. In other words, it is 68% of the originally jus sanguinis countries that have remained so. By contrast, 25% are steadily jus soli countries: this means that only 48% of the originally jus soli countries have not changed their policies. There is also a sizeable proportion of countries (18%) that have switched from jus soli to sanguinis, by completely eliminating birthplace as a criterion: most of them are former African colonies of the UK, which made this radical choice at independence. To sum up, despite the pressure of international migration, jus sanguinis appears to be relatively more resilient than jus soli,and there is growing evidence of the emergence of a process of convergence to a soli/sanguinis mix, which affects 22% of the countries (of with 4% converge from jus soli by restricting it, while 18% converge from jus sanguinis by adding jus soli elements) and which intensifies in the second subperiod.

Tables 2 and 3 show summary statistics and pairwise correlations, respectively, for citizenship laws in 2001, 1974, and 1948. The correlation between 2001 and 1948 citizenship laws is 0.39, which points to some persistence as confirmed by the even higher correlation between 1948 and 1974, and 1974 and 2001 laws. Our dummy for a jus soli origin is significantly but not perfectly correlated with the dummy for common law legal origin (0.75).

4.2 Citizenship by naturalization and dual nationality

Naturalization and dual nationality policies are also relevant to the issues at hand, because to facilitate naturalization for immigrant parents may represent a substitute mechanism to attribute citizenship to children born in jus sanguinis countries. Beside, the general attitude toward inclusiveness revealed by a country's regulation of citizenship at birth is also reflected in its naturalization laws, with jus soli countries traditionally making naturalization much easier, at least for resident aliens. Within jus sanguinis countries, naturalization requirements again tend to be correlated with the revisions introduced for citizenship at birth. Basic rules may include a period of residence, renunciation of other citizenship, familiarity with the language and customs of the country, the availability of adequate means of support.[10] We coded countries on the basis of the number of years of residence required for naturalization as of 2001, by constructing four classes (0-4, 5, 6-14, more than 14 years). Alternative ways to define classes yielded similar conclusions.[11] In our data set 23% of the countries require five years of residence, which can be considered a relatively open attitude, while 48% require more time.

As of 2001, dual nationality was fully recognized in some countries, rejected in others, while in some other cases was in general not recognized but exceptions were allowed. The most common exception is majority divestiture, which involves recognition of dual nationality until the age of maturity for those children of citizens who obtain the nationality of the country of birth. We coded countries accordingly, by creating three groups. Dual nationality is not recognized for Group 1, which includes 31% of the sample, recognized only under some circumstances for Group 2, and fully recognized for Group 3 (27% of the sample).

Combining the information we collected on citizenship at birth, naturalization and dual nationality, i.e., by averaging with equal weights an indexed version of the three classifications just described, we also constructed a general inclusiveness index defined on the 0-1 interval, with maximum inclusiveness being associated with 1. The corrected Cronbach's alpha of the indicator is 0.56, which assures sufficient reliability. Factor analysis indeed confirmed that our three variables share a common variance and are therefore generated by a single factor, which we interpret as degree of inclusiveness. Tables 2 and 3 also show summary statistics and pairwise correlations,

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[10]We do not consider naturalization by marriage, since it is heavily dependent on family law.

[11]For naturalization and dual nationality we have information on 140 of our 159 countries.

respectively, for naturalization and dual citizenship in 2001 and for the inclusiveness index. As reported in Table 3, citizenship laws in 2001 and the inclusiveness index show a 0.77 correlation, while their correlation with dual nationality and naturalization (both indexed) is 0.22 and 0.38, respectively.

5   Empirical specification

To estimate the determinants of citizenship laws evolution in the postwar period, we derived our empirical specification from the simple model presented in Section 3, where a country's degree of inclusiveness is shown to depend on its original legislation and migration, but also on its degree of democracy, its border stability, the size of its welfare state, and its culture. Accordingly, we run ordered logit models with Current Citizenship Laws as the dependent variable. The sample we consider includes two cross-sections of our 159 countries: the first cross-section is composed by country averages over the 1950-1974 period while the second cross-section is composed by country averages over the 1975-1999 period. Let C_{it} represent the current citizenship laws in country i in period t, with $i = 1, ..., 159$ and $t = 1, 2$ (where $t = 1$ refers to the 1950-1974 period and $t = 2$ refers to the 1975-1999 period).[12] Our dependent variable has three classes: $C_{it} = 1$ if the country has a jus sanguinis regime, $C_{it} = 2$ if the country has a mixed regime, and $C_{it} = 3$ if the country has a jus soli regime. Since the increasing degree of inclusiveness from a jus sanguinis to jus soli regime has a progressive nature, the ordered logit model is an appropriate model in this case. The ordered logit models we run have the following form:

$$C_{it} = aI_i + bM_{it} + cZ_{it} + e_{it},$$

where I_i is a dummy for the presence of jus soli in 1948 (i.e., initial citizenship laws), M_{it} is the net migration rate in country i in period t, Z_{it} is a set of additional explanatory variables, and e_{it} is the error term. The set of explanatory variables Z_{it} can be divided into three groups. First, as a test of our theoretical model, we include a set of country dummies capturing the country's past history of border changes (decolonization, Berlin Wall, other border changes), as well as a measure of democracy, a measure of the size of government activity, and proxies for cultural

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[12]In particular, the variable Current Citizenship Laws corresponds to citizenship laws in 1974 if $t = 1$ and to citizenship laws in 2001 if $t = 2$.

characteristics such as religion and ethnolinguistic fractionalization. The second group includes country dummies capturing the country's geopolitical position. The geopolitical dummies that we consider are: British colony, capturing those 49 countries that were British colonies after 1918, Latin America, sub-Saharan Africa, Southern Europe, and small, oil and socialist countries. The third group of explanatory variables includes quantitative and qualitative development indicators such as income per capita and inequality. Information on the definition and source of each variable is available in the Data Appendix.[13]

We can now suggest a number of hypotheses regarding the potential impact of each factor, starting with legal tradition and immigration. Legal tradition is identified here by the initial citizenship laws in 1948, for whose coefficient we expect a positive sign. Controlling for other factors, we also expect immigration to push a country's legislation toward the inclusion of elements of jus soli, when absent, with a coefficient of net migration displaying a positive sign. However, to reach a consensus over a change in the legislation may often take several decades, and may well follow an initial period in which the natives' reaction to the new immigration reality is less than welcoming: these considerations could weaken and even reverse the impact of migration on the law.[14] Moreover, the coefficient of migration could reflect its potential endogeneity. Further work will include testing for the potential endogeneity of migration. Finally, for each subperiod within the panel, we entered an average of net immigration rates over 25 years, which can hide very important fluctuations which we try to capture with specific dummies. For instance, most European countries showed small or negative, and relatively stable, immigration rates during the first subsample, while they have been experiencing quickly increasing inflows during the second,

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[13]In particular, part B describes how we constructed the three border change dummies.

[14]Since gross immigration has been suggested as a factor that favors the application of jus soli, while emigration should tighten jus sanguinis provisions, one would want to gauge their importance separately. However, as detailed in the Data Appendix, data availability is a serious constraint, since reliable and complete information is available only for net immigration for the postwar period. On the other hand, migration theory has demonstrated that the same factors that should favor immigration into a country should also discourage emigration from the same country, suggesting a high positive correlation between net and gross immigration, and a high negative correlation between net immigration and emigration. To be noticed is also that the UN definition of migrant covers cases where the decision to migrate is taken freely, and therefore should not include refugees. Often, however, the distinction between these two cases is a blurred one in the data. Stark (2004) and Hatton and Williamson (2005b) specifically focus on refugees and asylum seekers.

with most of the revision to the legislation occurring in the past 15 years or so. Therefore, the Southern Europe dummy should display a positive sign because of the relatively low average immigration in the second subperiod. Likewise, Latin America switched to jus soli long before our sample period, so its position is not justified by the current relatively moderate immigration flows and again we should expect a positive sign for the corresponding dummy. The dummy for oil countries should account for the fact that most of them have been experiencing huge immigration inflows which had no impact on their still very restrictive legislation (often based on Islamic family law): this would be confirmed by a negative coefficient for the dummy. Moreover, migration data reveal that countries with a small population tend to have large and erratic migration flows, with a disproportionately small impact on their legislation, so we also expect a negative sign for the small country dummy. Border stability is perceived as a prerequisite for the introduction of birthrights for the immigrants, so we expect a negative sign for the three border change dummies, even though several of the Berlin wall countries have recently accelerated a reform process leading to more inclusiveness. We also experimented with variables which have been found significant in related research on the determinants of institutions, so we introduced the sub-Saharan Africa dummy and the British colony dummy, both as a possible alternative to decolonization, and therefore with a potential negative effect on inclusiveness. The establishment of a consolidated democracy should exert a positive effect on inclusiveness even though, one again, even in a democratic country exclusionary forces against outsiders may persist for a protracted period of time. The possible impact of cultural factors is proxied by a number of different regressors, in an effort to capture different dimensions of cultural differences.[15] The data will tell us which cultural differences matter and in particular if cultural homogeneity is more conducive to inclusiveness than diversity. The size of government is meant to proxy for the nature of the welfare state, with a thicker, more expensive and more redistributive structure representing an obstacle to the inclusion of poor immigrants, even though young immigrants could also offer a solution to domestic demographic imbalances. Finally, the rationale for including per capita GDP and the index of inequality is that a richer, more equal country might be more open to immigration. However, most of these variables tends to be associated with net immigration, and also with democracy and fractionalization, so they are unlikely to add independent explanatory power to a regression.

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[15]For the costs and benefits of diversity see for example a recent paper by Ottaviano and Peri (2003).

6   Results

Table 4 reports summary statistics for all the variables we use in our study. Some of the key variables were already described in the data section, while here we also report additional dummy, categorical and continuous variables that we employed in our empirical analysis.

The net migration rates variable displays a large standard deviation which reflects complex and highly differentiated patterns, which can be explained as follows. Latin America is no longer a land of immigration, while the United States, Canada and Australia still display large immigration rates. Within Europe, and especially Southern Europe, we see a reversal from negative to positive immigration rates, which is very noticeable in the second subperiod. Within Africa, we observe extremely large and volatile in and out flows, which can be linked to major events such as wars and famines. Oil countries absorb at enormous rates, which are determined both by the small size of the local population, and by the large economic opportunities generated by oil extraction. Very large and volatile in and out flows are observed for the smallest countries (often recently-formed city-states or island-states).[16] A further look at the (unreported) summary statistics organized by subsamples (i.e., focusing on the 1950-1974 subsample and on the 1975-1999 subsample separately) reveals that the average net migration rate is much higher for the first subperiod, even though again this pattern hides enormous cross-continent variations. No relevant time variations appear for the other variables.

Pairwise correlations for the variables in the panel are presented in Table 5. Current citizenship laws, the dependent variable, is highly correlated with the initial 1948 laws, while they are only weakly correlated with the common law dummy. Current Citizenship Laws (as well as 1948 laws) are highly correlated with the Latin America dummy, since most of these countries switched to jus soli before 1948. The dependent variable is also significantly correlated with the proportion of Catholics, political rights and the GINI index of inequality. The 1948 laws are significantly positively correlated with the dummy for British colonies (0.51) and for common law (0.65, not reported in the table). Our border change dummies display interesting patterns. Decolonization shows a significant correlation with British Colony, since the British Empire was so extended,

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[16]Since gross immigration has been suggested as a factor that favors the application of jus soli, while emigration should tighten jus sanguinis provisions, one would want to gauge their importance separately. However, reliable and complete information is available only for net immigration.

and is also associated with low income per capita, the sub-Saharan Africa dummy, ethnolinguistic fractionalization, and political rights. Berlin wall is of course highly correlated with the socialist country dummy (and this correlation is even higher in the second subsample). Democracy tends to be high in rich, Catholic countries, low in highly fractionalized ones. The (unreported) correlation patterns for the two separate subsamples are in line with those for the panel. Overall, the stylized facts we report are in line with previous research and economic intuition. It is also clear that several of our independent variables are closely interrelated and that it may be difficult to disentangle their specific effect on the evolution of citizenship laws.

Our regression results are presented in Table 6. The estimates we perform refer both to our panel and to each of the two subsamples we focus on. Starting with the panel, in the first column we present a basic specification including only the core variables, i.e., the original laws and the net migration rate. While for the original laws the coefficient is significantly positive, as expected, migration shows a negative impact. In the second specification, we add to the core variables the geopolitical dummies previously identified. The jus soli dummy still displays a positive and highly significant coefficient, while the coefficient of migration is now positive but insignificant. The coefficient of the dummy for Latin America has the correct, significantly positive sign, while the British colony dummy has a negative impact. While the sub-Saharan dummy is negative but insignificant, its interaction with net migration is significantly negative. The Southern Europe dummy is also positive, but insignificant, and so is the small country dummy, while the socialist and the oil dummies have the correct, significantly negative sign. In the third column, we add to the previous specification the other regressors previously selected, i.e., the three border change dummies, a measure of democracy, the proportion of Catholics, ethnolinguistic factionalization, and the size of government. The jus soli dummy remains significantly positive, and migration also becomes significantly positive in this specification. Border changes were expected to exert a negative effect on inclusiveness. For decolonization and other border changes the coefficient is indeed negative, but insignificant, while for Berlin wall we observe a significantly positive coefficient: however, it turns out that for the estimated sample the only country captured by this dummy is Germany, which did shift from a jus sanguinis regime to a mixed one at the end of the sample, so the sign of the coefficient is consistent with the facts. The only other significant variable if government size, which displays a positive coefficient, contrary to our intuition. This

could be explained by the fact that the size of government proxies for European-style, relative inclusive social-democracies, or because many of the countries with extended welfare systems may favor immigration because of their demographic crisis. It turns out, however, that when we run this regression again for a sample limited to rich countries (see below for more details), then government size acquires a significantly negative coefficient, as expected for Western-style democracies. Democracy has a positive but insignificant coefficient, while Catholic and highly fractionalized countries appear to have a positive but insignificant tendency towards inclusiveness.

Turning to the first subsample, the most relevant news is that ethnolinguistic fractionalization now has a significantly positive coefficient. To be noticed is that we did not include for this sample the Southern Europe and the socialist country dummies among the regressors, because during this period these countries did not display any special pattern in this dimension as they consistently maintained jus sanguinis in the face of moderate (and in fact, highly restricted for the socialist countries) immigration.[17] Finally, the second subperiod uncovers three new noticeable tendencies: the impact of the original laws is fading with the time distance, with their coefficient losing significance; democratic countries show a significantly positive tendency towards inclusiveness, while countries that went through decolonization tends to restrict their regulation. Sub-Saharan Africa and its interaction with migration did not add any significant explanatory power and were therefore dropped for this sample.

Table 7 reports the marginal effects for the most complete specification in Table 6 (i.e., the third one), again for each sample. The marginal effects confirm that coming from a jus soli tradition has a significantly negative effect on the probability of being a jus sanguinis country and a significantly positive effect on the probability of being either a jus soli or a mixed regime country. The results also show that net migration has always a significant positive effect on the probability of being a jus soli country, and a significant negative one on the probability of being a jus sanguinis country (in all samples considered), confirming our predictions. In particular, a unit change in net migration rate increases the probability of being a jus soli country by 5 percentage points while it decreases the probability of being a jus sanguinis country by 6.9 percentage points. The fact that a country is in Latin America has a clear impact on its probability of adopting jus soli: Latin American countries are about 68% more likely to adopt jus soli than other countries. In the second

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[17]A version of the regression including these two dummies exhibited perfect predictions problems.

subsample, decolonization has a negative significant effect on the probability of being a jus soli or a mixed regime country, and a positive one on the probability of being a jus sanguinis, while political rights exhibit a significant positive effect on the probability that a country is inclusive.

We also studied the direct impact of purely economic factors on citizenship laws evolution. Timmer and Williamson (1998) and Mayda (2005) do find evidence that economic factors affect voters' attitudes towards immigration. We experimented with economic variables such as per capita income and inequality, and also the agriculture share and the level of education. When added to the more complete specification of the regressions in Table 6, these variables did not add any explanatory value, which is not surprising given the complex pattern of correlations previously illustrated. When added one by one to the more parsimonious specification including only the core variables and the geopolitical dummies, per capita income displays a positive coefficient and inequality a negative one, as intuition would suggest, but both coefficients are insignificant and do not affect the others. The coefficients for the agriculture share and the level of education were always insignificant. An alternative way to gauge the importance of economic factors is to divide our sample between rich and poor countries. This exercise suggested that for rich countries the results from Table 6 are broadly confirmed, with a generally higher significance level (e.g., for Catholics and decolonization) and with the importance differences that government expenditures has now a significantly negative coefficient, while sub-Saharan Africa - unsurprisingly - has a significantly positive one. For poor countries, migration becomes an insignificant factor in determining citizenship laws.

A variant of the more extended specification for the regressions in Table 6, where the initial citizenship laws are replaced by the legal origin, yield the following results: the dummy for common law is no longer significant for the panel, and makes the British colony and the Berlin wall dummies lose significance. In the first subperiod legal origin is significant (since the common law dummy is closer to the jus soli dummy for this subsample), while its standard error is very high, and higher than that of original laws, in the second. We also checked the consequences of taking citizenship laws in 1974, rather than in 1948, as the relevant initial condition for the second subsample. While again no substantial difference emerged in the overall results, because of the two zero entries in the transition matrix for 1974-2001 this option created zero cell problems.

We also run an analogous set of regressions for a cross-sectional sample composed by country

averages over the period 1950-1999, where we included the more general index of inclusiveness which we described in Section 4 as the dependent variable. Standard OLS were employed in this case, and delivered similar qualitative results confirming that our variable reflecting citizenship at birth does capture a broader set of rules concerning citizenship.

The regressions in Table 6 were also rerun, without changing any result, excluding observations for which migration rates were larger than 20 in absolute value, in order to correct for outliers which can be determined by additional factors that we do not explicitly account for, such as wars, political prosecution, famines, and other environmental disasters. An alternative ordered probit model also delivered very similar qualitative results which are not presented here.

Finally, we repeated the exercise with a generalized order logit model, which allows the covariates to exert a different effect on the probability of moving across categories by relaxing the proportional odds hypothesis on which the standard ordered logit is based. Our (unreported) results for the panel show that the general tendency captured by the ordered logit coefficients in Table 6 is confirmed for the move away from jus sanguinis toward more inclusiveness, while the same covariates tend to have an ambiguous effect on the next move all the way to jus soli. We interpret this as evidence of convergence to a mixed regime, rather than of a drift towards maximum inclusiveness.

Overall, our empirical investigation over a large number of countries for the postwar period confirms that the legal tradition and migration do explain the evolution of citizenship laws towards a higher degree of inclusiveness, but only after controlling for a number of factors which reflect border stability, the level of democracy and the welfare burden, as suggested by political scientists. The influence of cultural factors, at least in the sense of Brubaker (1992), is hard to detect with our proxies, but we do find some evidence that a more ethnolinguistically diverse country like France tends to be more inclusive than a more homogeneous country like Germany. We also found that post-colonial history matters but not necessarily in the direction that legal theory would suggest, because we show that a jus soli/common law transplanted heritage need not be retained after independence.[18]

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[18]Berkowitz et al. (2003) study the transplanting process for legal institutions.

24

7 Conclusion

We have studied the origin and evolution of the legal institution of citizenship around the world from the end of the 19th until the turn of the 21th century, and compiled a new data set describing their evolution since 1948. In the postwar period, citizenship laws are shown to respond endogenously and systematically to migration and the legal tradition, as well as to border stability, the degree of democracy, the welfare burden, cultural factors, and postcolonial developments. We view these results are a first step toward a full understanding of the process of formation of legal rules and its interaction with economic factors as well as other forms of institutions.

Citizenship laws are still changing. One of our plans for future research is to project the future evolution of citizenship policy around the world for the next half century, by using projections of international migration in combination with the available work which has tried to predict the future course of democratization and of border changes.

Another question which we leave for future research is the following. What are the implications of citizenship laws evolution - and the consequent extension of political rights for immigrants - for the welfare state? Continental Europe is historically characterized by a thick welfare state, while only recently it has been experiencing increasing immigration. In this context, the current evolution of the concept of citizenship and the consequent broadening of the voting franchise could introduce a new channel for a further deterioration of public accounts, which calls for further investigation.

Finally, citizenship laws can be viewed as a link, within a legal system, between the public and the private sphere of influence. Many issues that fall within the former - such as commercial law, labor regulation, and government activities - have already been investigated. We plan to extend our methodology to the study of other evolving bodies of the law, such as family law, rules of inheritance, and women's rights.

DATA APPENDIX

A. Definitions and sources

Migration: The data we use are net international migration rates taken from the 2002 UN Common Database. These data are compiled by the UN Population Division, which provides estimates

of annual average net immigration rates over five year intervals from 1950, with projections until 2050, for 192 countries. We use the available data for the 1950-1999 period. Information on international immigration and emigration rates was also provided from 1949 to 1995 by the UN Demographic Yearbook Database, compiled by the UN Statistics Division. However, collection was suspended due to the bad quality of the process. They are currently testing a revised questionnaire in order to resume collection starting with 2000 data. The available historical data were not even included in the UN Demographic Yearbook Historical Supplement, 1948-1997 (2000). The OECD (2002) has also been collecting migration data from some members countries since 1980, but the available sample is clearly inadequate for our purposes. **Common law**: The source is La Porta et al. (1999). **Political rights**: We use the political rights index (on a seven point scale) from Freedom House (1996) as elaborated by La Porta et al. (1999). **Ethnolinguistic fractionalization**: We employ a composite index of ethnolinguistic fractionalization which includes ELF60 and other 4 indexes. See Easterly and Levine (1997). **Catholic share**: We report the percentage of Catholics in 1980, taken from La Porta et al. (1999). **Government consumption**: We take the government share of GDP in current prices from the Penn World Table (2002). **GDP per capita**: We enter the log of the real GDP per capita at current international prices from the Penn World Table (2002). **GINI index**: The source is Deininger and Squire (1996). **Socialist countries**: Information is from La Porta et al. (1999). **Oil countries**: OPEC countries plus Oman, Angola, Qatar, Bahrain, and Brunei. **Sub-Saharan Africa, Latin America and Southern European countries**: The classification is from UN (2002). **British colonies**: We count those countries that were British colonies any time after 1918. The source is the Correlates of War 2 Project (2004). **Small countries**: As in Easterly and Kraay (2000), small countries are defined as those with a population size of less than one million over all available years between 1960 and 1995.

B. The border change dummies

We constructed three border change dummies based on data collected from Polity IV (2002). In particular, from the Polity IV variable CHANGE we recorded information on four types of events, capable of affecting state borders, starting from the year 1943. Even if we set 1948 as the initial date for our citizenship laws analysis, for border changes we included a few earlier events that fit

within the phase of post-colonial independence. The events are: State Disintegration (e.g., Yugoslavia in 1991); State Transformation (e.g., Germany 1990, East Germany 1945, West Germany 1945, Russia 1992); State Demise (e.g., Germany 1945, East Germany 1990, West Germany 1990, USSR 1991); and State Creation. This last group of observations is the most numerous since it includes all the new countries gaining independence - and therefore state borders - in the postwar decolonization phase, the new countries formed in Europe after the fall of the Berlin wall, plus a few additional observations not linked to these two waves. Clearly there is substantial overlap among the observations recorded in the Polity IV data set. We adapted these data to our needs by matching them to the 159 countries appearing in our citizenship laws data set. For instance, we count as a single event, occurring to Germany, the state transformation of East and West Germany in 1945 but also the state demise of Germany in the same year. Likewise, we treat as another single event, occurring again to Germany, the state transformation of Germany in 1990 and the state demise of East and West Germany in the same year. On the other hand, the separation of Bangladesh from Pakistan counts for two events, because it concerns two countries which are in our sample. Additional information when necessary was obtained from the CIA (2002). Overall, we distilled 104 events, occurred to 98 countries. This discrepancy arises because a few countries were subject to more than one border changes during the time period under examination. This is the case for example of Germany, divided in 1945 and reunited in 1990, and of Pakistan and Bangladesh, which went through post-colonial state formation first, and division later. On this basis we constructed three border change dummies: decolonization, fall of the Berlin wall, and other types of boundary changes. 50% of the countries in the sample went through a post-colonial redefinition of their borders, of which 87% occurred during the first subperiod, while 11% went through a post-1989 Berlin wall border change and 4% through other types of border changes (of which examples are the split between Pakistan and Bangladesh, and the unification of Vietnam).

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Table 1
Transition matrices for Citizenship Laws in 2001, 1974, 1948

	Citizenship Laws in 2001			
Citizenship Laws in 1948	1	2	3	*Total*
0	59	28	5	*92*
1	28	7	32	*67*
Total	*87*	*35*	*37*	*159*
	Citizenship Laws in 1974			
Citizenship Laws in 1948	1	2	3	*Total*
0	78	9	5	*92*
1	21	1	45	*67*
Total	*99*	*10*	*50*	*159*
	Citizenship Laws in 2001			
Citizenship Laws in 1974	1	2	3	*Total*
1	79	20	0	*99*
2	1	9	0	*10*
3	7	6	37	*50*
Total	*87*	*35*	*37*	*159*

Table 2
Summary statistics for Citizenship Laws, Naturalization, Dual Citizenship,
Inclusiveness Index and Common Law, 1950-1999

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Citizenship Laws in 2001	159	1.686	0.828	1	3
Citizenship Laws in 1974	159	1.692	0.921	1	3
Citizenship Laws in 1948	159	0.421	0.495	0	1
Naturalization in 2001	140	2.457	0.924	1	4
Dual Citizenship in 2001	159	1.956	0.766	1	3
Inclusiveness Index	140	0.443	0.273	0	1
Common Law	159	0.321	0.468	0	1

Table 3
Pairwise correlations between Citizenship Laws, Naturalization, Dual Citizenship,
Inclusiveness Index and Common Law, 1950-1999

	Citizen. Laws in 2001	Citizen. Laws in 1974	Citizen Laws In 1948	Naturalizat. in 2001	Dual Citizen. in 2001	Inclusiv. Index	Common Law
Citizen. Laws in 2001	1						
Citizen. Laws in 1974	0.777*	1					
Citizen. Laws in 1948	0.387*	0.620*	1				
Naturalizat. in 2001	0.379*	0.302*	0.149	1			
Dual Citizen. in 2001	0.218*	0.232*	0.133	0.310*	1		
Inclusiveness Index	0.772*	0.630*	0.307*	0.713*	0.726*	1	
Common Law	0.017	0.290*	0.751*	-0.045	0.022	-0.012	1

Table 4
Summary statistics (panel data[§]), 1950-1999

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Current Citizenship Laws	318	1.689	0.874	1	3
Citizenship Laws in 1948	318	0.421	0.495	0	1
Net Migration	301	0.157	9.584	-69.708	85.770
Berlin Wall	318	0.053	0.225	0	1
Decolonization	318	0.252	0.435	0	1
Other Border Changes	318	0.022	0.147	0	1
British colony	318	0.308	0.462	0	1
Latin America	318	0.164	0.370	0	1
Sub-Saharan Africa	318	0.264	0.442	0	1
Southern Europe	318	0.044	0.205	0	1
Oil	318	0.088	0.284	0	1
Socialist	318	0.176	0.382	0	1
Small Country	318	0.151	0.359	0	1
Political Rights	318	4.346	2.230	1	7
Ethnolinguistic Fractionalization	266	0.355	0.299	0	0.89
Catholic Share	318	30.821	35.185	0	97.3
Government Consumption	258	19.001	10.407	2.465	60.096
Log GDP per capita	258	7.446	1.243	4.958	10.06
GINI Index	152	40.420	9.832	20.495	62.3
Common Law	318	0.321	0.468	0	1

[§]The panel sample includes two cross-sections of our 159 countries. The first cross-section is composed by country averages over the period 1950-1974 while the second cross-section is composed by country averages over the period 1975-1999. The variable Current Citizenship Laws includes two observations for the laws at the end of each period, i.e., citizenship laws in 1974 for the first period and citizenship laws in 2001 for the second period.

Table 5
Pairwise correlations among dependent and independent variables (panel data[§]), 1950-1999

	Current Citizen. Laws	Citizen. Laws in 1948	Net Migr.	Decolo_nization	Berlin Wall	Other Border Changes	British Colony	Latin America	Sub-Saharan Africa	South Europe	Oil	Socialist	Small Country	Political Rights	Ethno. Fraction.	Catholic Share	Govern. Cons.	Log GDP Per cap	GINI Index
Current Citizen. Laws	1																		
Citizen. Laws in 1948	0.509*	1																	
Net Migration	-0.136*	-0.017	1																
Decolonization	-0.059	0.063	0.008	1															
Berlin Wall	-0.075	-0.203*	-0.023	-0.138*	1														
Other Border Changes	-0.069	0.002	0.007	0.061	-0.036	1													
British Colony	0.020	0.506*	0.085	0.288*	-0.159*	0.086	1												
Latin America	0.577*	0.484*	-0.158*	-0.139*	-0.105	-0.066	-0.001	1											
Sub-Saharan Africa	-0.089	-0.078	-0.062	0.310*	-0.142*	-0.090	0.064	-0.265*	1										
Southern Europe	-0.082	-0.183*	-0.038	-0.124*	0.085	-0.032	-0.077	-0.095	-0.129*	1									
Oil	-0.131*	-0.040	0.375*	0.050	-0.074	-0.047	0.081	-0.077	-0.086	-0.067	1								
Socialist	-0.251*	-0.328*	-0.033	-0.173*	0.477*	0.043	-0.273*	-0.160*	-0.277*	0.062	-0.144*	1							
Small Country	0.120*	0.174*	0.005	0.140*	-0.100	-0.003	0.365*	0.099	0.066	-0.005	-0.007	-0.195*	1						
Political Rights	0.308*	0.119*	-0.101	-0.207*	0.038	-0.014	-0.073	0.176*	-0.253*	0.215*	-0.347*	-0.079	0.148*	1					
Ethno. Fraction.	-0.057	0.057	0.041	0.241*	-0.064	-0.091	0.128*	-0.270*	0.634*	-0.169*	0.091	-0.192*	0.017	-0.312*	1				
Catholic Share	0.383*	0.153*	-0.157*	-0.192*	-0.044	-0.107	-0.218*	0.536*	-0.071	0.265*	-0.155*	-0.144*	0.017	0.346*	-0.170*	1			
Govern. Consumpt.	0.003	-0.080	0.027	-0.009	0.230*	0.055	0.136*	-0.064	0.118	-0.068	-0.022	0.175*	-0.014	-0.211*	0.116	-0.122*	1		
Log GDP per cap.	0.038	-0.080	0.192*	-0.522*	0.262*	-0.090	-0.127*	0.027	-0.474*	0.176*	0.075	0.190*	0.120	0.389*	-0.406*	0.082	-0.006	1	
GINI Index	0.244*	0.412*	-0.123	0.034	-0.288*	-0.116	0.165*	0.504*	0.285*	-0.155	-0.006	-0.448*	0.190*	-0.199*	0.23*9	0.244*	0.054	-0.342*	1
Common Law	0.160*	0.751*	0.029	0.176*	-0.163*	0.035	0.650*	-0.049	0.077	-0.148*	0.024	-0.282*	0.237*	0.039	0.239*	-0.253*	-0.020	-0.075	0.082

[§]The panel sample includes two cross-sections of our 159 countries. The first cross-section is composed by country averages over the period 1950-1974 while the second cross-section is composed by country averages over the period 1975-1999. The variable Current Citizenship Laws includes two observations for the laws at the end of each period, i.e., citizenship laws in 1974 for the first period and citizenship laws in 2001 for the second period.
* significant at 5%.

Table 6
The determinants of citizenship laws, 1950-1999§

	PANEL			FIRST SUBSAMPLE			SECOND SUBSAMPLE		
	Current Citizen. Laws	Current Citizen. Laws	Current Citizen. Laws	Citizen. Laws in 1974	Citizen. Laws in 1974	Citizen. Laws in 1974	Citizen. Laws in 2001	Citizen. Laws in 2001	Citizen. Laws in 2001
Citizenship Laws in 1948	2.024***	2.112***	1.945**	2.857***	3.519***	3.547**	1.362***	1.393**	1.204
	[0.325]	[0.562]	[0.852]	[0.402]	[0.875]	[1.593]	[0.338]	[0.677]	[0.860]
Net Migration	-0.040*	0.079	0.278*	-0.037	0.075	0.345*	-0.054**	0.066	0.164**
	[0.023]	[0.062]	[0.150]	[0.035]	[0.060]	[0.183]	[0.027]	[0.091]	[0.075]
Latin America		2.666***	3.337***		2.360**	4.271***		2.993***	3.237***
		[0.903]	[1.157]		[0.921]	[1.524]		[1.043]	[1.131]
British Colony		-1.637***	-1.698*		-1.921**	-2.276		-1.798**	-1.514
		[0.600]	[1.009]		[0.936]	[2.568]		[0.809]	[0.994]
Sub-Saharan Africa		-0.123	-0.094		0.248	0.147			
		[0.420]	[0.541]		[0.609]	[0.899]			
British Colony*Net Migr.		-0.075	-0.436*		-0.056	-0.739**		-0.202	-0.328
		[0.077]	[0.258]		[0.062]	[0.371]		[0.166]	[0.262]
Sub-Sah. Africa*Net Migr.		-0.139**	-0.339**		-0.282*	-0.570*			
		[0.070]	[0.159]		[0.146]	[0.301]			
Southern Europe		0.332	0.587					0.473	0.342
		[0.365]	[0.508]					[0.455]	[0.500]
Socialist		-0.929**	-0.857					-0.711	-1.172
		[0.437]	[1.195]					[0.459]	[1.296]
Oil		-1.466**	-1.881**		-1.123	-2.307**		-1.815**	-1.301
		[0.596]	[0.828]		[0.743]	[1.161]		[0.915]	[0.867]
Small Country		0.564	-0.062		0.947	0.443		0.044	-0.680
		[0.615]	[0.935]		[0.815]	[1.281]		[0.800]	[1.117]
Political Rights			0.201			0.136			0.367**
			[0.145]			[0.302]			[0.179]
Catholic Share			0.002			-0.012			0.008
			[0.007]			[0.013]			[0.006]
Ethno.Fractionalization			1.278			2.478*			0.859
			[0.960]			[1.296]			[0.926]
Government Consumption			0.047**			0.090***			0.057*
			[0.022]			[0.030]			[0.030]
Decolonization			-0.066			-1.176			-1.883*
			[0.385]			[1.872]			[1.093]
Berlin Wall			0.843*						0.51
			[0.492]						[0.484]
Other Border Changes			-0.42			0.558			
			[1.377]			[1.461]			
Cut Point 1	1.113***	0.766**	3.193**	1.706***	1.886***	4.033	0.701***	0.305	3.764**
	[0.191]	[0.303]	[1.262]	[0.283]	[0.356]	[2.792]	[0.204]	[0.282]	[1.473]
Cut Point 2	1.967***	1.885***	4.442***	2.186***	2.511***	4.966	1.857***	1.950***	5.496***
	[0.189]	[0.298]	[1.281]	[0.252]	[0.321]	[2.827]	[0.193]	[0.315]	[1.576]
Observations	301	301	225	144	144	102	157	157	123
McFadden's R2	0.13	0.27	0.34	0.25	0.37	0.5	0.07	0.26	0.33
Count R2	0.67	0.75	0.75	0.77	0.83	0.85	0.57	0.68	0.78

§Ordered logit estimates. Robust standard errors in brackets. In the panel sample, robust standard errors assume clustering at country level. The panel refers to the period 1950-1999 (see also footnote to Table 10). The first subsample refers to the period 1950-1974 while the second subsample refers to the period 1975-1999. In the panel, the variable Current Citizenship Laws includes two observations for the laws at the end of each period, i.e., citizenship laws in 1974 for the first period and citizenship laws in 2001 for the second period.
*significant at 10%; ** significant at 5%; *** significant at 1%.

Table 7
Marginal effects, 1950-1999[§]

	PANEL			FIRST SUBSAMPLE			SECOND SUBSAMPLE		
	Jus Sanguinis	Mix	Jus Soli	Jus Sanguinis	Mix	Jus Soli	Jus Sanguinis	Mix	Jus Soli
Citizenship Laws in 1948	-0.449***	0.094*	0.355**	-0.709***	0.057	0.652***	-0.290	0.113	0.176
	(0.170)	(0.054)	(0.143)	(0.198)	(0.042)	(0.206)	(0.195)	(0.082)	(0.135)
Net Migration	-0.069*	0.019	0.050**	-0.086*	0.017	0.069*	-0.041**	0.018	0.023**
	(0.038)	(0.015)	(0.025)	(0.046)	(0.014)	(0.036)	(0.019)	(0.012)	(0.010)
Latin America	-0.582***	-0.098	0.680***	-0.672***	-0.108*	0.780***	-0.559***	-0.078	0.637***
	(0.099)	(0.088)	(0.166)	(0.105)	(0.063)	(0.120)	(0.092)	(0.143)	(0.205)
Brtitish Colony	0.394**	-0.142	-0.252**	0.489	-0.138	-0.352	0.360*	-0.180	-0.180*
	(0.197)	(0.099)	(0.110)	(0.408)	(0.139)	(0.277)	(0.210)	(0.133)	(0.096)
Sub-Saharan Africa	0.023	-0.007	-0.017	-0.037	0.007	0.030			
	(0.135)	(0.040)	(0.095)	(0.225)	(0.041)	(0.184)			
British Colony*Net Migration	0.109*	-0.031	-0.078*	0.185**	-0.037	-0.148**	0.082	-0.035	-0.046
	(0.065)	(0.026)	(0.042)	(0.093)	(0.032)	(0.069)	(0.066)	(0.037)	(0.032)
Sub-Sah. Africa*Net Migration.	0.085**	-0.024	-0.061**	0.142*	-0.029	-0.114*			
	(0.040)	(0.017)	(0.027)	(0.075)	(0.022)	(0.062)			
South Europe	-0.142	0.022	0.120				-0.083	0.030	0.053
	(0.117)	(0.019)	(0.111)				(0.118)	(0.036)	(0.087)
Socialist	0.206	-0.083	-0.123				0.277	-0.159	-0.118
	(0.263)	(0.132)	(0.134)				(0.263)	(0.188)	(0.085)
Oil	0.386***	-0.186**	-0.201***	0.419***	-0.165**	-0.254***	0.300*	-0.178	-0.122*
	(0.118)	(0.079)	(0.058)	(0.127)	(0.073)	(0.076)	(0.172)	(0.117)	(0.068)
Small Country	0.016	-0.004	-0.011	-0.110	0.015	0.095	0.168	-0.086	-0.082
	(0.234)	(0.070)	(0.163)	(0.311)	(0.024)	(0.291)	(0.268)	(0.167)	(0.104)
Political Rights	-0.050	0.014	0.036	-0.034	0.007	0.027	-0.091**	0.039	0.052**
	(0.036)	(0.013)	(0.026)	(0.075)	(0.016)	(0.060)	(0.045)	(0.030)	(0.022)
Catholic Share	-0.001	0.000	0.000	0.003	-0.001	-0.002	-0.002	0.001	0.001
	(0.002)	(0.000)	(0.001)	(0.003)	(0.001)	(0.003)	(0.002)	(0.001)	(0.001)
Ethnolinguistic Frationaliz.	-0.319	0.090	0.230	-0.619*	0.124	0.495**	-0.213	0.092	0.121
	(0.240)	(0.079)	(0.173)	(0.324)	(0.102)	(0.252)	(0.231)	(0.103)	(0.137)
Government Consumption	-0.012**	0.003	0.008**	-0.023***	0.005	0.018***	-0.014*	0.006	0.008**
	(0.005)	(0.002)	(0.004)	(0.008)	(0.003)	(0.006)	(0.008)	(0.005)	(0.004)
Decolonization	0.017	-0.005	-0.012	0.286	-0.055	-0.231	0.401**	-0.247**	-0.154**
	(0.096)	(0.028)	(0.068)	(0.430)	(0.069)	(0.367)	(0.159)	(0.123)	(0.063)
Berlin Wall	-0.196*	0.015	0.181				-0.122	0.038	0.084
	(0.104)	(0.029)	(0.119)				(0.109)	(0.027)	(0.097)
Other Border Changes	0.104	-0.037	-0.067	-0.137	0.014	0.123			
	(0.335)	(0.141)	(0.194)	(0.345)	(0.016)	(0.346)			

[§]The marginal effects are calculated from the estimated coefficients in Table 11, third column of each sample. They are computed at the mean of our sample. The marginal effect of a dummy variable is calculated as the discrete change in the expected value of the dependent variable as the dummy variable changes from 0 to 1. * significant at 10%; ** significant at 5%; *** significant at 1%.