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HOW TO MEASURE THE PURPOSES OF CITIZENSHIP LAWS: EXPLANATORY REPORT FOR THE CITLAW INDICATORS

Version 2.0

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How to Measure the Purposes of Citizenship Laws: Explanatory Report for the CITLAW Indicators

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CITLAW Indicators

How to Measure the Purposes of Citizenship Laws[1]

Kristen Jeffers, IseultHonohan and Rainer Bauböck[2]

1. Why yet another set of citizenship indicators?

1. 1. The multiple purposes of citizenship laws

Through their citizenship laws, states determine whom they recognize as their citizens. The laws of EU member states determine furthermore who will be citizens of the Union. In much of the contemporary literature, citizenship laws are compared with regard to one single aspect: the extent to which they select and include as citizens non-European immigrants and their descendants. This is a very important question, but it is certainly not the only relevant one. States pursue multiple purposes when determining their citizenry. Some of these purposes have little to do with immigration, but may still have important unintended side-effects for immigrants' access to citizenship.

In the past, EUDO CITIZENSHIP has developed a typology of 27 modes of acquisition and 15 modes of loss of citizenship that permit structured qualitative comparison between the most common provisions in citizenship laws. Based on this typology and further information about material and procedural conditions provided by national experts in questionnaires and country reports we have published a series of comparative reports and summarised these in policy briefs.

The large number of modes and countries (for 2011, 27 EU member states plus 8 EEA and accession candidate states)[3]covered in these comparisons makes it difficult to discern any

[1] The first edition of this report was published in November 2012 and was part of the ACIT project financed by the European Fund for the Integration of Non-EU nationals (EIF). This version can be accessed here. The authors are grateful to Nathalie Rougier, who has provided crucial research assistance for the 2016 revisions of the CITLAW indicators, and to Claus Hofhansel who sent the authors important hints about errors in the 2011 edition.

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[3]The indicator examples here reflect 2011 provisions (with some corrections from the 2012 version of the paper). For 2016, 28 EU member states and 14 others, a total of 42 countries, are included in the indicators.

patterns in these qualitative data. In our comparative reports and policy briefs we have therefore occasionally ranked countries with regard to how inclusive or restrictive their laws are with regard to important features. This is fairly easy for years of residence required for naturalisation. Comparison becomes much more difficult when we consider a broader range of substantial and procedural conditions, such as how long and often a residence period may be interrupted or whether the naturalisation candidates must have held a specific long-term residence permit for a certain time. Similar difficulties emerge when comparing birthright citizenship or the toleration of dual citizenship. Previous attempts to develop quantitative indicators have selected a few legal provisions that seem easy to compare. While this may be good enough for broad quantitative analyses that aim to determine whether the openness or restrictiveness of citizenship regimes correlates with other variables, the validity of indicator scores for specific countries becomes questionable when important further conditions for access are ignored. To give one concrete example: when measuring the inclusiveness of a country's citizenship regime for second generations of immigrant descent, ius soli entitlements are obviously an important indicator. If we consider only whether a country offers ius soli at or before the age of majority to children born in the territory to foreign national parents, then Italy and France both meet this condition. However, in contrast with France, Italy requires uninterrupted residence until the 18th birthday and excludes thereby large parts of the second generation from ius soli citizenship.

The most comprehensive set of citizenship indicators available up to now has been the MIPEX III (2010) nationality strand. These indicators are grouped into four categories: eligibility, conditions, security of status, and dual nationality. The modes of acquisition covered include ius soli for second and third generation, residence-based and family-based naturalisation. Several reasons and procedures of withdrawal of citizenship are also captured. MIPEX III covers also some procedural aspects that are captured in more detail in our CITIMP indicators, but deliberately left aside in CITLAW.

So why do we still propose a new set of indicators? First, because none of the existing sets of indicators is sufficiently comprehensive. For example, no indicator has so far covered what is the most basic and universally applied way of acquiring citizenship status, which is iussanguinis. No indicator exists so far for voluntary renunciation, and for both naturalisation and withdrawal there are many legal provisions that have been left aside in existing indicators. This alone would not be a sufficient reason for starting from scratch instead of adding to MIPEX or other indicators.

A second reason is that MIPEX has used a coding procedure where national experts assess a bundle of relevant legal provisions on a three point scale with 100 = most inclusive, 0 = most restrictive and 50 = medium inclusion/restriction. We propose instead a more inductive and finely calibrated coding procedure, which will be explained in more detail in section 3. The basic idea is similar to the one used by Waldrauch and Hofinger in their LOI index.[4] We start from individual modes of acquisition and loss and assign specific scores or weights to substantive and procedural conditions for each mode. The final score for each basic indicator (which generally corresponds to one of the modes of acquisition and loss in our EUDO CITIZENSHIP typology) emerges thus from an arithmetical formula with additions, deductions and multiplicative weights. Although we make this operation fully transparent below, it cannot be easily applied by national experts who are not trained in social

[4]Waldrauch, H. and C. Hofinger (1997). "An Index to Measure the Legal Obstacles to the Integration of Migrants." New Community23(2): 271-286; Waldrauch, H. (2001). Die Integration von Einwanderern: Ein Index der rechtlichen Diskriminierung. Frankfurt, Campus.

science methods. Moreover, coding by national experts who work independently from each other carries a high risk that different standards of assessment will be applied to the similar legal provisions. We believe therefore that our method of central inductive coding based on qualitative information about legal data that have been verified by country experts enhances validity as well as reliability and allows for more finely calibrated distinctions between national citizenship laws.

The third reason is the most fundamental one and has been mentioned above. All indicators so far have focused on one aspect of citizenship laws: how open they are for including immigrants and their offspring. We start instead from the idea that citizenship laws serve multiple, and often also conflicting public policy purposes. In order to answer the frequently posed research question why the citizenship regime of country X differs from that of country Y, it is not appropriate to use indicators for differences that capture only one policy goal (inclusion of immigrants) that may not have been the most important one for the evolution of national regimes. For example, if a country has changed its prohibition of dual citizenship due to pressure from its expat community, then measuring the evolution of its citizenship regime only in terms of inclusion of immigrants is likely to miss the actual story.

Our comprehensive mapping of multiple purposes of citizenship laws also allows us to avoid another bias in much of the current comparative literature on citizenship – the assumption of internal coherence of national regimes so that their differences could be easily captured and explained by a single dimension (civic vs. ethnic or liberal vs. restrictive) or two such dimensions (civic territorial vs. ethnic conceptions of individual equality, and monist vs. pluralist conceptions of cultural difference and groups rights in Koopman's et al. model).[5] Such apparent one- or two-dimensionality results from selecting a small set of indicators. This is a perfectly legitimate approach for testing certain important differences between national citizenship policies, but jumping to the conclusion that citizenship laws are shaped by coherent principles all of which operate at the national level is not warranted. For example, it seems that some aspects of citizenship laws are strongly convergent due to the emergence of an international legal norm and court activities in enforcing this norm, while others remain shaped by national historic traditions or specific domestic and foreign policy goals.

CITLAW indicators will thus allow for a comparison of citizenship laws that is both more comprehensive with regard to the modes of acquisition and loss covered, and more detailed with regard to the conditions attached to such modes.

1.2. Descriptive and Explanatory Uses of CITLAW

CITLAW indicators serve three research goals: descriptive analysis of citizenship laws, explaining variations between citizenship laws, and explaining the impact of citizenship laws

[5] Koopmans, R., P. Statham, et al. (2005). Contested Citizenship: Immigration and Cultural Diversity in Europe. Minneapolis, University of Minnesota Press.

Descriptive Analysis

Their primary goal is descriptive comparison of the citizenship laws of 36 European states. These are the 27 EU member states in 2011 plus the then current candidate states (Croatia, Turkey, Macedonia, Montenegro and Serbia) as well as the EEA states (Iceland, Norway) and Switzerland, plus Moldova. For this purpose we aim to provide the following outputs for our users:

(1) a **database** in excel format that can be exported and used for further analysis, including the possibility of combined analysis with the other three sets of ACIT indicators (CITIMP, CITACQ and CITINT)

(2) **visualisation** through several interactive graphic applications, in which users can select years, countries and indicators in order to visualize the variation of indicators across time and countries. The four graphic applications are maps, bar charts, radar charts, which make it possible to compare the scores for up to 12 indicators for several countries, and scatter plots, which show a two-dimensional distribution of countries on two selected indicators.

(3) **time series**: At the first stage of the project we provided indicator scores for citizenship laws at the end of 2011. A second stage provides indicator scores for the beginning of 2016. At a further stage, we will aim to provide also scores for the past, which will then allow also for longitudinal comparisons.

Explaining citizenship laws

A second possible use of CITLAW indicators is to test causal hypotheses that claim to explain the variation between citizenship regimes over time and across countries. For example, Marc M. Howard has suggested that early democratisation and a colonial experience provide for overall more liberal access to citizenship initially, while electoral strength of anti-immigrant populist parties best explains the direction of change from a initial starting point.[6] In order to refine the testing of Howard's hypothesis, one would need to identify those CITLAW indicators that are indicative of liberal access. These serve then as dependent variables. In the ACIT project, we do not test specific explanatory hypotheses for citizenship regimes. We merely encourage independent research efforts of this kind and offer our EUDO CITIZENSHIP working paper series for publication of results.

Explaining the impact of citizenship laws

The third use of CITLAW indicators is as independent variables in order to test the impact of legal provisions on citizenship acquisition rates and on integration indicators for naturalised immigrants. We know that both depend not only on the citizenship laws of destination countries, but also on demographic factors (the average years of residence among immigrants), ethnic composition (impact of the country of origin laws, experience of ethno-religious discrimination, size and density of ethnic communities), political climate (anti-immigrant campaigns or public promotion of naturalisation), and self-selection processes (human capital). What we want to test is how significant the impact of variations in citizenship laws is compared to these other influences.

[6] Howard, M. M. (2009). The Politics of Citizenship in Europe. Cambridge, Cambridge University Press.

We are also specifically interested in the impact of naturalisation conditions that select eligible immigrant populations according to integration criteria on post-naturalisation integration outcomes. For example, we would like to know whether language tests in naturalisation correlate with better post-naturalisation records in employment, or whether civic knowledge tests and oaths of loyalty correlate with higher rates of political participation.

Finally, in order to get a fuller view of the legal as well as administrative obstacles to naturalisation and their impact on naturalisation rates, CITLAW naturalisation indicators can be combined with CITIMP indicators for the procedural aspects of naturalisation.

The goals of studying the impact of legal provisions on citizenship acquisition rates and of understanding the impact of acquisition on integration indicators links CITLAW to the CITACQ and CITINT indicators. However, for the time being, these latter analyses will not extensively make use of CITLAW for two reasons. First, due to the short time period of the ACIT project, the four indicator strands have to be developed simultaneously rather than sequentially, which means that CITLAW indicators have not been yet available when CITACQ and CITINT indicators were developed. Especially for the relevant naturalisation indicators, which have not yet been constructed at the time of writing, CITACQ and CITINT analyses will therefore have to rely on the MIPEX III scores. Second, the available individual level survey data used for CITACQ and CITINT cannot be easily matched with the country level data for CITLAW and CITIMP. For example, as long as we do not know the year and mode of naturalisation in the survey data, we cannot know which of the legal provisions have applied to the individual in the dataset.

1.2. Constructing the CITLAW indicators

CITLAW indicators are based on provisions of citizenship laws that serve a specific purpose. Among these purposes are:

- securing the continuity of citizenship across generations through automatic attribution at birth
- determining the extent of territorial inclusion of the resident population through residential conditions for naturalisation, renunciation and withdrawal
- regulating the extent of overlap with other states' citizenship regimes through restricting or tolerating multiple citizenship
- selecting categories for preferential naturalisation based on criteria such as family unity, cultural affinity, civic virtues, economic contributions or preferential treatment of former citizens or citizens of specific other countries
- using citizenship for maintaining ties with emigrants and their descendants, or preventing over-inclusiveness of extraterritorial citizenship by withdrawing citizenship from external populations without genuine ties.

Reforms often pursue other political goals that are not inherent purposes of citizenship laws. For example, naturalisation fees may be raised in order to increase budget revenues for the administration rather than in order to select immigrants by income. Restricting family-based preferences in naturalisations of spouses may serve the goal of reducing family migration

inflows instead of signalling a weakening of the purpose of family unity in citizenship status. Since such broader political purposes are not clearly linked to specific modes of acquisition and loss we do not take them into account in constructing CITLAW indicators. As these two examples illustrate, the effect of reforms driven by other political goals will still be a change in the significance of inherent purposes within the overall citizenship regime (a strengthening of economically-based selection and a weakening of family unity respectively).

Basic CITLAW indicators are derived from modes of acquisition and loss in the EUDO Citizenship typology (see appendix 1). Most indicators use a single mode (e.g. ASOL05, the indicator for ius soli after birth, is based on mode A05). In two cases we have decided to combine more than one mode into a single indicator: We interpret A04 (acquisition by children born out of wedlock through recognition of paternity/maternity) as a restriction on A01 (acquisition at birth by children of citizen parents) and combine therefore these two modes into a single indicator for ius sanguinis. In table 2 this combination is indicated by a slash A01/A04). For special naturalisation, we create an indicator (ANAT24) for preferential access to naturalisation based on special achievements by combining modes A24 (special achievements) and A26 (investment). In several cases, we also had to split modes into new submodes that are not categorised separately in the EUDO CITIZENSHIP typology. This applies again to ius sanguinis: A01 has been split into ius sanguinis in the country (ASAN01a) and ius sanguinis at birth abroad (ASAN01b). Similarly, we consider renunciation (mode L01) while resident in the country (LREN01a) and renunciation while resident outside the country (LREN01b) separately. We also distinguish ius soli at birth for second generations, both of whose parents were born abroad, and third generations, one of whose parents was born in the country. We split therefore mode A02 into submodes ASOL02a for second generation ius soli and ASOL02b for third generation (`double`) ius soli and code each of these as basic indicators. The complete list of ius soli indicators consists therefore of ASOL02a, ASOL02b, ASOL03a, ASOL03b and ASOL05. For involuntary loss, we split mode L13 (annulment of family relationship) into two distinct indicators: LWIT13a, annulment of paternity, and LWIT13b, adoption by noncitizen.

For ordinary naturalisation, the mode of acquisition with the largest number of conditions, we split mode of acquisition A06 into several indicators that capture distinct conditions for ordinary naturalisation: ANAT06a, residence conditions for ordinary naturalisation; ANAT06b, renunciation of other citizenship; ANAT06c, language requirements; ANAT06d, civic knowledge and cultural assimilation; ANAT06e, criminal record, and ANAT06f, economic resources.

Basic indicators are constructed as independent of each other, and jointly they are meant to exhaustively cover all those provisions of citizenship laws that can be compared across countries in a standardised manner. Of course, citizenship laws are full of idiosyncratic provisions that are unique or have few parallels in other countries. And for those provisions that are widely used across countries, comparison could certainly also be done at an even more detailed level – for example by comparing specific conditions for renunciation instead of aggregating these into a single score for renunciation conditions per country. We believe, however, that our list of basic indicators is long enough to capture the complexity of citizenship laws. The most comprehensive characterisation of a country's citizenship regime that CITLAW indicators make possible is thus the position that the country occupies within a multidimensional space created by the 45 basic indicators. The position of a country is then defined as the vector of its scores on all basic acquisition and loss indicators.

Combined CITLAW indicators: Indicators are grouped into six main categories. The first distinction is whether they are based on provisions regulating the acquisition or loss of citizenship (indicated by an 'A' or 'L' as the first letter in the indicator label). The second distinction is within each of these two categories. Acquisition can occur through birthright based on descent from a citizen parent (ius sanguinis, indicated by the syllable SAN), through birthright derived from birth in the territory (ius soli, indicated by the syllable SOL, or through some form of naturalisation (indicated by the syllable NAT). We use here the term 'naturalisation' broadly for any mode of acquisition after birth that is not derived from birthright. We distinguish two main types of naturalisation: ordinary residence-based naturalisation (ORD) and special naturalisation (SPEC), through which certain categories of persons gain privileged access to citizenship based on their special ties or contributions. For loss of citizenship there are only two basic categories: loss through voluntary renunciation (REN) or through withdrawal/lapse, i.e. involuntary loss based on either a decision of state authorities or on automatic loss (ex lege) (WIT). The six main categories are thus marked as ASAN, ASOL, ANATORD, ANATSPEC, LREN and LWIT. The suffixes to these labels relate the indicators to the EUDO CITIZENSHIP typology of modes of acquisition and loss. Thus, ASOL05 is based on acquisition mode A05 = ius soli after birth.

Basic CITLAW indicators are aggregated in into combined indicators from the bottom up. First there are intermediate indicators. In the case of ius soli, for example, we calculate an ius soli at birth indicator (ASOL02) by combining ius soli for the second generation (ASOL02a) and third generation (ASOL02b). This ASOL02 indicator for ius soli at birth will be independently useful for comparative analyses that want to exclude acquisition after birth. We call this type of combined indicator 'intermediate' since it is between basic indicators and the highest level of aggregation that we call 'general indicators'.

General indicators represent the six main categories mentioned above and are combined in such a way that all basic indicators are included in one and only one general indicator. For example, our general indicator for ius soli ASOL is combined from the intermediate indicator for ius soli at birth (ASOL02) and the remaining three basic indicators for ius soli for foundlings (ASOL03a), for stateless children (ASOL03b), and ius soli after birth (ASOL05)). Likewise ius sanguinis in the country (ASAN01a) is combined with ASAN01b to provide a general ius sanguinis indicator (ASAN).

We also create combined indicators for naturalisation. Our general ordinary naturalisation indicator, ANATORD, based on mode A06, combines the more specific indicators for residence, renunciation requirements, language and civic knowledge requirements, cultural affinity, and economically based naturalisation. We summarise all conditions for different forms of family-based naturalisation into the intermediate indicator, ANATFAM. Combining ANATFAM with all the other indicators for special naturalisation creates a general indicator for special naturalisation, ANATSPEC. These are the highest level indicators we create for naturalisation.

Similarly, we combine several withdrawal indicators according some common underlying purposes into intermediate indicators (see table 3) for involuntary loss based on lack of ties, disloyalty, non-compliance with naturalisation conditions, or loss of family relations with citizens. These intermediate indicators are then once again combined into a general indicator for involuntary loss LWIT.

Higher level indicators allow for a more condensed characterisation of citizenship regimes than basic ones. They can also be used to reduce the number of dimensions that characterize an overall citizenship regime. If we use only the six general indicators ASAN,

ASOL, ANATORD, ANATSPEC, LREN and LWIT, the space within which we compare citizenship regimes is reduced from 45 to 6 dimensions that capture the most important purposes present in nearly all citizenship laws.

In contrast with all other previous citizenship law and policy indicators, we do not offer any further aggregation across all indicators so that a country's citizenship regime could be characterised by a numerical score on a single dimension of inclusion/exclusion (or by a point in a two-dimensional space as in Koopman et al.'s ICRI index). The reason for this lower level of maximum aggregation is that CITLAW captures more purposes and legal provisions than any of the previous indices and that a higher level of overall aggregation would lead to results that can no longer be interpreted intuitively. For example, we cannot construct an overall birthright indicator by aggregating scores for ius soli and ius sanguinis. Although both principles serve the basic purpose of securing intergenerational continuity through birthright citizenship, they do so in different and independent ways. This is both a conceptual and an empirical claim. Conceptually, we do not think that there is some underlying birthright principle that would make a regime with weak ius soli and strong ius sanguinis in some way similar to one with strong ius soli and weak ius sanguinis. Empirically, we do not expect our ius sanguinis and ius soli indicators to be strongly positively correlated. In the case of naturalisation, the principles underlying ordinary and special naturalisation are similarly clearly different. It would also not make sense to aggregate loss initiated by voluntary renunciation with involuntary withdrawal or lapse of citizenship into a single loss indicator, since there is a strong normative contrast between the two types of loss and there is no coherent public policy purpose of making citizenship easy or hard to lose in both ways.

It is, however, possible, to combine some of our indicators in other ways in order to capture some specific purpose of the law. For example, legislators of some countries have consistently tried to avoid dual citizenship no matter whether it is acquired at birth, through incoming naturalisations or through outgoing ones, while others have been broadly tolerant of dual citizenship in all these cases. By combining several provisions on acquisition and loss we can therefore construct a compound indicator for the toleration of multiple citizenship. In similar ways, we it is possible to use CITLAW indicators for constructing compound indicators for territorial inclusiveness, for the strength of external citizenship status, of family preferences and of civic virtue criteria. In contrast with acquisition and loss indicators, such compound indicators are not mutually exclusive with regard to the basic indicators they are composed of. We do not include compound indicators in the set of basic and combined CITLAW indicators, but encourage their construction for specific research purposes.

Table 1: CITLAW indicator overview: acquisition of citizenship

General indicator level 3	Intermediate indicator level 2	Basic indicator level 1	Indicator name	Composed of modes/conditions/ indicators
		ASAN01a	ius sanguinis at birth in the country	A01/A04
		ASAN01b	ius sanguinis at birth abroad	A01/A04
ASAN			ius sanguinis	ASAN01a, ASAN01b
		ASOL02a	ius soli at birth 2nd generation	A02a
		ASOL02b	ius soli at birth 3rd generation	A02b
	ASOL02		ius soli at birth	ASOL02a, ASOL02b
		ASOL03a	ius soli foundlings	A03a
		ASOL03b	ius soli otherwise stateless	A03b
		ASOL05	ius soli after birth	A05
ASOL			Ius soli	ASOL02, ASOL03a, ASOL03b, ASOL05
		ANAT06a	ordinary naturalisation residence	A06 residence conditions
		ANAT06b	ordinary naturalisation renunciation	A06 renunciation conditions
		ANAT06c	ordinary naturalisation language	A06 language tests
		ANAT06d	ordinary naturalisation civic knowledge and cultural assimilation	A06 civic tests and assimilation conditions
		ANAT06e	ordinary naturalisation criminal record	A06 criminal record, character
		ANAT06f	ordinary naturalisation economic resources	A06 income, welfare conditions
ANATORD			ordinary naturalisation	ANAT06a, ANAT06b, ANAT06c, ANAT06d, ANAT06e,

				ANAT06f
		ANAT07	naturalisation socialization	A07
		ANAT08	naturalisation spouse transfer	A08
		ANAT09	naturalisation child transfer	A09
		ANAT10	naturalisation adopted children	A10
		ANAT12	naturalisation descendants former citizens	A12
		ANAT13	naturalisation spouse extension	A13
		ANAT14	naturalisation child extension	A14
	ANATFAM		naturalisation family members	ANAT08, ANAT09, ANAT10, ANAT12, ANAT13, ANAT14
		ANAT16	Reacquisition	A16
		ANAT18	naturalisation citizens of specific countries	A18
		ANAT19	naturalisation cultural affinity	A19
		ANAT22	naturalisation refugees	A22
		ANAT23	naturalisation stateless persons	A23
		ANAT24	naturalisation special achievement	A24, A26
		ANAT25	naturalisation public service	A25
ANATSPEC			Special naturalisation	ANATFAM, ANAT07, ANAT16, ANAT18, ANAT19, ANAT22, ANAT23, ANAT24, ANAT25

Table 2: CITLAW indicator overview: loss of citizenship

General indicator level 3	Intermediate indicator level 2	Basic indicator level 1	Indicator name	Composed of modes/conditions/ indicators
		LREN01a	renunciation in the country	L01a
		LREN01b	renunciation abroad	L01b
LREN			Renunciation	L01
		LWIT02	withdrawal residence abroad	L02
		LWIT03	withdrawal military service	L03
		LWIT04	withdrawal public service	L04
		LWIT05	withdrawal acquisition other citizenship	L05
		LWIT06	withdrawal retention birth	L06
		LWIT07	withdrawal disloyalty	L07
		LWIT08	withdrawal crime	L08
		LWIT09	withdrawal fraud	L09
		LWIT10	withdrawal retention after naturalisation	L10
		LWIT11	withdrawal loss by parents	L11
		LWIT12	withdrawal loss by spouse	L12
		LWIT13a	withdrawal annulment paternity	L13a
		LWIT13b	withdrawal adoption by foreign citizens	L13b
		LWIT14	withdrawal establishment foreign citizenship	L14
	LWITTIES		withdrawal loss of ties	LWIT02, LWIT05, LWIT14
	LWITLOY		withdrawal disloyalty	LWIT03, LWIT04, LWIT7, LWIT8
	LWITCOMP		withdrawal noncompliance	LWIT06, LWIT09, LWIT10
	LWITFAM		withdrawal family based	LWIT11, LWIT12, LWIT13
LWIT			withdrawal	LWITTIES, LWITLOY, LWITCOMP, LWITFAM

2. General coding principles

2.1. The CITLAW scale

We measure the strength of purposes within an overall citizenship law through a series of indicators, each of which is coded on a scale of 0 to 1. However, such purposes may aim at inclusion or exclusion, or they may aim at strengthening individual autonomy and choice or the power of authorities in the determination of citizenship status. In order to know how to interpret a specific score, we must first know whether the purpose is interpreted as linked to inclusion and individual choice or to exclusion/selection and maximising state power. These criteria are therefore used to orient the scale in the same way for all indicators.

We define 1 as maximum inclusion or minimum exclusion and maximum individual choice and 0 as maximum exclusion or minimum inclusion and maximum state power *given the basic assumptions for the respective indicator*. For example, unconditional and automatic ius soli at birth is maximally inclusive and scores 1 on the ius soli at birth indicator whereas the absence of any ius soli at birth provision scores 0; residence based naturalisation is more inclusive the *shorter* and *easier* to meet the residence criterion is; the dual citizenship indicator scores 1 if there are *no* legal obstacles for holding or acquiring another citizenship alongside the citizenship of the country under consideration.

For some modes we can interpret the indicator score as the probability that a person who meets the general conditions assumed for maximum inclusion and about whom nothing else is known will acquire or lose citizenship under that rule. In an unconditional and automatic ius soli regime, the probability that a child born in the territory will acquire citizenship is 1. If ius soli is conditional on parental residence, then the probability is lower than 1, since there will be a significant number of children born in the territory whose parents fail to meet the condition. In a pure residential entitlement naturalisation regime, every foreign citizen who applies after x years of residence will acquire citizenship. Any additional condition, such as citizenship tests or administrative discretion will lower this probability. While this interpretation is useful to make sense of the scores, it must not be taken too literally. As pointed out above when discussing citizenship acquisition rates, actual probabilities of acquisition and loss will depend on many factors that are not inherent in the citizenship regime. CITLAW indicator scores compare the structural inclusiveness or restrictiveness of legal rules rather than transition rates between citizenship statuses.

Determining the orientation of the scale for voluntary renunciation LREN01 is less obvious than for the acquisition indicators. The general purpose of renunciation provisions is to determine the conditions under which individuals can give up their citizenship. If the maximum were defined as maximum inclusion, then the strongest restrictions on, or denial of, renunciation would be most inclusive. This would, however, contradict the second relevant criterion of individual choice vs. state power. Individual choice is strongest where there the conditions for withdrawal are weakest. On all other dimensions, maximum inclusion can be considered as compatible with individual autonomy. For most observers it would be counter-intuitive if we gave priority to inclusion where it conflicts directly with individual autonomy. We assign therefore a score of 0 to the most restrictive conditions for renunciation and a score of 1 to those provisions that offer individuals the widest freedom to renounce their citizenship.

For withdrawal or lapse of citizenship, the orientation of the scale is not a problem. For these modes of loss, inclusiveness and individual autonomy can be once again maximised simultaneously. We assign a score of 1 to the absence of a provision that allows the authorities to terminate citizenship status for all modes of withdrawal or lapse. A score close to 0 is then assigned to the most extensive powers for authorities to withdraw citizenship, to the weakest powers of citizenship holders to retain their status, and to those material conditions under which it is most likely that citizenship will be lost.

As long as we make these somewhat different interpretations of our scale in the cases of renunciation and withdrawal explicit, there should be no subsequent problems because we do not aim at higher level aggregation for these two sets of indicators. Just as we cannot combine ius sanguinis and ius soli into a single birthright indicator, we also cannot combine renunciation and withdrawal into a single loss indicator. Instead, loss regimes should be analysed as configurations of countries (or of the same countries at different points in time) in a two dimensional space opened by our general renunciation and withdrawal indicators LREN and LWIT. These configurations can be visualised as scatter plots in our interactive charts tool.

Table 3: Orientation of CITLAW scale

	Birthright	**Naturalisation**	**Renunciation**	**Involuntary loss**
1= maximum inclusion or individual choice	unconditional automatic acquisition	entitlement with minimum conditions	maximum freedom with least conditions	no provision or maximum restrictions
0= maximum exclusion or state power	no provision or maximum conditions	no provision or maximum conditions	no provisions or maximum conditions	minimum restrictions

2.2. General coding principles

2.2.1. Determining the maximum and minimum scores for basic indicators

The first step in determining a country's CITLAW score for a specific indicator is to check whether the mode of acquisition or loss on which the indicator is based exists in the national citizenship law. Some modes are universally present. All national laws in our sample contain provisions on ius sanguinis acquisition (mode A01), on ordinary naturalisation (A06) or on voluntary renunciation of citizenship (mode L01). Other modes exist only in some countries, but not in others. For example, most states in our sample do not have any general provision for ius soli acquisition at birth (except for special provisions for foundlings or otherwise stateless children).

The absence of a mode of acquisition in a country means that a person who would qualify for citizenship in other countries cannot acquire it there. For birthright and naturalisation indicators, the absence of the relevant mode is therefore coded as 0. For withdrawal indicators, the absence of a mode of loss results in a score of 1 because it means

that the state concerned has no power to deprive of her citizenship a person who would risk losing it if other states' laws were applied. For example, 23 of the states we examine do not have any provision for withdrawing citizenship on grounds of long term residence abroad and get therefore a score of 1 on the LWIT02 indicator.

The other ends of the scale are less easy to determine. In the case of acquisition indicators, we assign a score of 1 to provisions that provide unconditional or automatic access to individuals in the eligible category. Of course the definition of the category itself always contains conditions. Ius sanguinis applies only to persons who have at least one citizen parent. Twelve countries where this condition alone is sufficient for ex lege acquisition of citizenship independently of whether the person is born in the country or abroad receive a score of 1. For naturalisation, defining the maximum is more difficult. For example, facilitated naturalisation for persons who have special achievements (mode A24) involves in all cases a discretionary decision by the authorities. There is thus no automatic and unconditional access to citizenship under this provision. In such cases we start from a hypothetical question of what could count as the most 'generous' regulation and compare this then to the closest example in our sample in order to arrive at a working definition of the most inclusionary maximum. The same procedure applies – mutatis mutandis – to determining the zero point for withdrawal indicators. For many of these there is a clear result if the law foresees automatic loss (= lapse) or nullification of citizenship. For example, voluntary acquisition of a foreign citizenship has that consequence in six states. For withdrawal due to disloyalty or treason, we need to look first at the empirical cases to find out which provisions provide states with the widest power and individuals with least protection. In our view, this is the case for Moldova's law that foresees loss of citizenship for acts that are seriously prejudicial to the vital interests of the state.

2.2.2. Substantive conditions for acquisition or loss

The entries for modes in our database contain information about the substantive and procedural conditions that the states in our sample apply when determining whether individuals qualify for acquisition or loss of citizenship. A fundamental problem we face for determining scores is that some countries' citizenship laws are very complex, which means that a single mode in our typology can be regulated by several different articles of the law and that each article may contain a long list of conditions, whereas other laws are very short and leave wide discretion to authorities how to apply the law. In order to make conditions comparable across countries we compile inductively a list of the most frequently used and most relevant conditions for each mode based on the entries in the database. We then try to condense this list into the shortest set of conditions that characterise how easy it is to acquire or lose citizenship under the mode concerned.

In a next step we compare the conditions to each other and consider how strongly each of them constrains or enables citizenship acquisition, retention or loss. Based on this evaluation we assign a score between 0 and 1 to the condition. Initially we experimented with a scale that would allow us to choose any value between 0.1 and 0.9. However, we eventually decided that translating qualitative legal data into numerical scores on such a finely calibrated scale would rely too much on our expert opinion and will not make our coding procedure sufficiently transparent. We therefore use now a five point scale. The endpoints of this scale (0 and 1) are determined by the rules explained above. So we classify then conditions as closer to 0, medium, and closer to 1, and attribute scores of 0.25, 0.5 and 0.75 to these.

For acquisition indicators we start from a default value of 1 = unconditional acquisition and subtract then the scores for substantive conditions from 1. For example, for ASOL02a = ius soli for second generation at birth we assign a value of 1 to unconditional ius soli, as it existed in Ireland until 2004 and still exists in the US and Canada, and a value of 0 to countries that have no ius soli provision for children born to two foreign citizen parents. For all other countries we determine indicator values by subtracting the following scores from 1 if the respective condition constrains ius soli acquisition:

- registration or declaration required: –0.25
- parental residence of up to 5 years is required:–0.25
- parental residence of 6 to 10 years is required
  or permanent parental residence permit or equivalent is required: –0.5
- parental residence of more than 10 years is required: –0.75.

Note here that conditions 2, 3 and 4 (parental residence) are mutually exclusive but can be combined with condition 1 (registration requirement). The initial score of a country on this indicator can thus result from accumulative conditions. For example, for granting citizenship to a child of foreign parents born in the territory, Belgium requires that a parent must have resided in the country for 5 out of the last 10 years with a permanent residence permit, and that the child must be formally registered.[7] The ASOL02a score for Belgium is thus calculated as 1 – 0.50 (parental permanent residence permit required) – 0.25 (registration) = 0.25.

For certain ordinary naturalisation indicators, conditions for acquisition can be separated into mutually exclusive categories and there is no need for accumulative deductions. For these indicators (ANAT06b, ANAT06c, ANAT06d, ANAT06e, ANAT06f), there is one single deduction per country based on the least restrictive provision or most generous exception. For example, a single deduction from 1 is selected based on the category that most accurately defines the renunciation requirement for ordinary naturalisation (ANAT06b):

- no renunciation requirement: -0
- formal renunciation requirement generally not enforced: -0.25
- no renunciation requirement in case of unreasonable burden or high costs: -0.5
- renunciation required except where no release by country of current citizenship or otherwise not possible: -0.75
- no exceptions to renunciation requirement specified in the law: -1

For the renunciation indicators, we also start from a default value of 1 and subtract points for substantive conditions. In this case, a score of 1 indicates that renunciation is unrestricted as long as the person possesses another citizenship; points are subtracted for conditions that restrict an individual's ability to renounce citizenship.

The converse procedure is used for calculating initial scores for withdrawal indicators. We start from a default value of 0, which means that there is no provision for withdrawal that

[7] The child acquires citizenship ex lege, since registration cannot be denied (see M.-C. Foblets and Z. Yanasmayan (2010) EUDO Citizenship Country Report, Belgium, RSCAS/EUDO-CIT 2010/11 p. 7), but registration is still a necessary condition and therefore relevant for calculating the strength of ius soli.

corresponds to this mode, and we add then scores of 0.25, 0.5 and 0.75 for conditions depending on how strongly they restrict state power to deprive a citizen of his or her legal status.

2.2.3. Procedural conditions

Where this seems plausible we treat procedural conditions just like substantive ones by considering how they affect opportunities of acquisition, retention or loss. For example, as we discuss more extensively in section 4, there are three procedures for involuntary loss of citizenship: withdrawal, lapse and nullification. Consider France, where the law provides that citizenship can be withdrawn if a person has never resided in France and has never applied for a passport or registered for voting and if the parents have also not resided in France for 50 years. In other countries, similar provisions lead to automatic expiry (lapse) of citizenship status, but in France the state must take action to bring about the loss of citizenship. We take therefore lapse as the default procedure for indicator LWIT02 and add 0.25 to France's score because the procedure in this country is withdrawal rather than lapse.

This aggregative method of taking procedural differences into account does not work well in all cases. We apply therefore alternatively a method of multiplying the score for substantive conditions by a factor that indicates the impact of the procedure. For example, some countries exclude children born abroad out of wedlock to a citizen father (ASAN01b), but introduce procedures through which this exclusion from automatic ius sanguinis can be overcome. Some merely require registration of the child, while others foresee a judicial decision or DNA test to establish paternity and still others require legitimation of the child through marriage. We assign weights of 0.25, 0.5 and 0.75 to these three types of procedures. The Netherlands grants citizenship to children born out of wedlock to a Dutch father only if paternity can be established through a DNA test, legitimation or by declaration if the father has been a caregiver for the child for the last three years before the declaration. The score for the substantive condition that paternity must be established is 0.5, the weight for the easiest procedure to establish paternity (through DNA test) is also 0.5. Applying this weight to the substantive condition score results in a reduced score of 0.5 x 0.5 = 0.25, which is then deducted from 1 and yields the final score of the Netherlands of 0.75, which indicates that it restricts ius sanguinis transmission abroad somewhat but not as strongly as would have been the case had it fully excluded children born out of wedlock to Dutch fathers.

A similar method is applied where individuals who are threatened with a loss of citizenship are offered preventative options. In this case, the weights must be greater than 1 in order to increase the score of substantive conditions that restrict the capacity of states to withdraw citizenship. For example, if a simple declaration of intention to retain citizenship is sufficient to prevent loss in case of acquisition of a foreign citizenship, then the initial score will be increased by a weight of 1.75. For loss of citizenship because of long-term residence abroad (LWIT02), Spain achieves a score of 0.75 that results from a 'bonus' of 0.25 for the condition that citizenship can only be withdrawn if the person has another citizenship and another addition of 0.25 for limiting withdrawal to the third generation, i.e. to persons born abroad to a Spanish parent who was him/herself born abroad. The initial score of 0.5 is then increased through multiplication with a weight of 1.50 because a declaration within three years of majority is required to prevent the loss.

We also use a weighting principle to account for the procedural distinctions for naturalisation. Naturalisation can be achieved automatically, through declaration or

registration, as an entitlement, or through a discretionary decision of the authorities. For ordinary naturalisation, we define the default procedure as involving a discretionary decision and increase the overall ANAT06 score by 1.25 if applicants who meet the conditions for naturalistion are entitled to citizenship. For special naturalisation, we define declaration or entitlement to naturalisation as the default procedure, and increase the overall deduction for material conditions by 1.25 if the procedure involves a discretionary decision. In certain cases, minimal material conditions mean that there is not a deduction from 1, but the procedure for naturalisation does involve a discretionary decision. For these cases, we apply a weight of 0.75 to the indicator score of 1.

Our adjustment of initial scores based on the existence of a mode of acquisition or loss through deductions, subtractions and weights for substantive and procedural conditions generates a much more fine-tuned assessment of citizenship laws than earlier indicators have provided. There is, however, a problem that these methods cannot guarantee that the final score will remain within the zero to one range of our scale. Because scores below 0 and above 1 are meaningless, we need to make sure that the scores we use for substantive and procedural conditions will not systematically produce such results. We have therefore decided to avoid assigning high scores or weights to conditions where we know that overshooting will be the result. We have also sometimes bundled together several conditions from an initial list in order to avoid accumulating scores over too many conditions. This solution is not perfect but it maintains the "integrity" of our scale and applies the same rules to all countries in the sample.

2.2.4. Scores for combined indicators

Calculating the scores for combined indicators is generally much easier than determining those for basic indicators. The default rule is to assign to the combined indicator the average of the scores of the basic indicators of which it is composed. For example, when calculating the value of a country for the ius sanguinis indicator (ASAN), which is composed of ius sanguinis at birth in the country (ASAN01a) and ius sanguinis at birth abroad (ASAN01b), the formula is 0.5 (ASAN01a + ASAN01b). In this case, we do not see any good reason for giving greater weight to either of the two basic indicators. It is of course true that in nearly all cases there are many more acquisitions by descent through birth in the country than through birth abroad. However, this is not a relevant consideration for judging the purpose of ius sanguinis regulations. One could even make the opposite argument that for births in the country there is no practical difference between ius sanguinis and ius soli, so that only ius sanguinis abroad should be considered as relevant. However, this view overlooks that some countries do significantly restrict ius sanguinis in their territory by excluding children born out of wedlock or by denying citizenship to children with only one citizen parent who acquire another citizenship at birth. Lacking any plausible criterion for comparing the weight of ius sanguinis restrictions for birth in the country and abroad, we use the default method of calculating the average score for the combined indicator.

For a second type of combined indicators there are, however, good reasons to give more weight to some components compared to others. For example, a combined indicator for withdrawal based on a presumptive loss of ties to the country of citizenship can be constructed from the following basic indicators: LWIT02 (long term residence abroad), LWIT05 (acquisition of a foreign citizenship) and LWIT14 (establishing possession of a foreign citizenship by a foundling or presumptively stateless child). It would be implausible to give equal weight to these indicators when calculating a combined one. Although LWIT14

shows the determination of a state not to avoid dual citizenship whenever possible, it does not bear so strongly as the other two indicators on the question of whether citizenship is withdrawn from persons who have lost genuine ties to the country. We use therefore in this case a weighted average formula:

LWITTIES = 0.4 LWIT02 + 0.4 LWIT05 + 0.2 LWIT14

In such weighted averages, the weights used must add up to 1 and cannot be taken from our five point scale. We can justify the weights we choose only on grounds of our informed judgment. Minor differences in the selection of these weights are also very unlikely to change the rank order of country scores on a combined indicator. We believe therefore that our method allows for interpretation of CITLAW indicators as ordinal, but not as interval scales.

A more difficult problem in the construction of combined indicators concerns those that are not independent but interactive. Consider the relation between ASOL02a (ius soli for the second generation) and ASOL02b (ius soli for the third generation). In a country where most children born in the territory become citizens based on unconditional or strong ius soli provisions for the second generation, there is no need for additional provisions for the third generation since provisions for the second generation *a fortiori* apply to those with parents themselves born in the territory. It would thus be perverse to give a country with such a citizenship law a lower score than a country that combines a weaker ius soli for the second generation with unconditional birthright for the third one. Resolving the problem through weighting down third generation ius soli to such an extent that it no longer impacts strongly on the combined indicator would also be inappropriate, since this solution would dilute the significant distinction between pure ius sanguinis states and those with "double ius soli" for the third generation.

In order to take into account interactive effects between two modes (where access under one mode substitutes for access under the other mode) we could use the following formula:

ASOL02 = 1– (1–ASOL02a)(1– ASOL02b).

This formula is still inadequate as it gives equal weight to second and third generation ius soli, although the former clearly implements the underlying principle more strongly than the latter. We therefore give third generation ius soli only half the weight of second generation ius soli in the final formula:

ASOL02 = 1– (1–ASOL02a)(1– 0.5 ASOL02b)

The same considerations apply also to the relation between this combined indicator for ius soli at birth (ASOL02) and the basic indicator for ius soli after birth (ASOL05). Strong provisions for ius soli at birth substitute for ius soli after birth because the former already include most of the individuals who could be eligible under the latter. When combining all ius soli indicators into a general indicator, we use therefore again an interactive formula and we also reduce the weight given to the marginal modes of ius soli for foundlings and otherwise stateless children (ASOL03a and ASOL03b). The formula for overall ius soli is thus:

ASOL = 0.85 (1–(1–ASOL02) (1–0.5 ASOL05))+ 0.05 ASOL03a + 0.1 ASOL03b.

3. Birthright Indicators

In this section we present some of the results of applying these procedures to produce birthright indicators for ius sanguinis and ius soli.

3.1 Ius sanguinis

Ius sanguinis citizenship is available in each of the countries in our sample, though with varying degrees of restriction both within the country and abroad, and with a greater degree of variation abroad.

We provide here for reference the coding principles for ius sanguinis citizenship applying to birth in the country (ASAN01a) and abroad (ASAN01b). In each case the first table lists the conditions restricting the provision and the relevant deductions, and the second table lists the procedures for overcoming these with the reduced weighting that applies to the deductions.

ASAN01a—IUS SANGUINIS BORN IN THE COUNTRY

MATERIAL CONDITIONS

Unconditional ius sanguinis ex patre and ex matre	–0
Ius sanguinis ex patre is not applied to a child born out of wedlock	–0.5
Ius sanguinis is not applied if only one of the parents is a citizen of the country or if the child acquires another citizenship at birth	–0.5
No provisions	–1

WEIGHTING OF MATERIAL CONDITIONS

OVERCOMING RESTRICTIONS

Only declaration (parental recognition) or registration is required	0.25
Judicial decision is required or the procedure is more cumbersome (DNA test)	0.50
Procedure is very cumbersome (legitimation through marriage) or decision is discretionary	0.75
No possibility for overcoming the restriction	1

ASAN01b—IUS SANGUINIS BORN ABROAD

MATERIAL CONDITIONS

Unconditional ius sanguinis ex patre and ex matre in the country and abroad	–0
Ius sanguinis is not applied if the parent who is a citizen of the country was born abroad	–0.25
Ius sanguinis is not applied if the parent is a naturalised citizen of the country	–0.25
Ius sanguinis is not applied if only one of the parents is a citizen of the country or if the child acquires another citizenship at birth	–0.5
Ius sanguinis ex patre is not applied to a child born out of wedlock	–0.5
Ius sanguinis is not applied if the parent who is a citizen of the country is a long–term resident abroad	–0.5
No provisions	–1

WEIGHTING OF MATERIAL CONDITIONS

OVERCOMING RESTRICTIONS

Only declaration (parental recognition) or registration is required	0.25
Judicial decision is required or the procedure is more cumbersome (DNA test)	0.50
Procedure is very cumbersome (legitimation through marriage) or decision is discretionary	0.75
No possibility for overcoming the restriction	1

Let us consider how these apply, taking first a rather straightforward example of a ius sanguinis regime – France.

Here citizenship by ius sanguinis is available to all children born to citizens, both in the country and abroad. This gives a score of 1 for each of ASAN01a (in the country) and ASAN01b (abroad), and an overall score for ius sanguinis of 1. (Other countries with an overall ius sanguinis indicator of 1 are Bulgaria, Estonia, Lithuania, Luxembourg, Moldova, Norway, Poland, Romania, Slovakia and Spain.)

To take a more complicated case, we turn to Denmark. In Denmark, a child born to a citizen in the country automatically becomes a citizen. Hence Denmark has an ASAN01a indicator score of 1. But, for ASAN01b (until 2013) a child born abroad to a citizen is not automatically a citizen if born out of wedlock, *and* if the mother is not a Danish citizen. This

child can, however, become a citizen if the Danish father marries the mother; or can be naturalised if the father has shared or full custody of the child. The conditions reduce the score, but the provision for overcoming them weakens the reduction.

Hence for ASAN01b, the score is

1 (some provision) – 0.5(does not apply ex patre out of wedlock) x .75(a provision to overcome, but cumbersome) = 0.625

The overall score for ius sanguinis, and the ius sanguinis indicator for Denmark (ASAN) then is 0.5(ASAN01a + ASAN01b) = 0.81.

An interesting case of ius sanguinis application is the UK. Here birth in the country (ASAN01a) to at least one citizen parent leads to citizenship. So, the ASAN01a score for the UK is 1.

For ASAN01b (birth abroad) things are slightly more complicated. A child born to a UK citizen abroad becomes a citizen automatically only if the parent 'acquired citizenship otherwise than by descent' (i.e. the parent must have been born in the country or have naturalised), or if the parent is in the UK public service. However this condition can be overcome by registration while the child is a minor either if the parent who acquired citizenship by descent has lived at any time for three years in the UK, and the parent's parent did not acquire citizenship by descent, OR if the child and both parents (unless one is dead or divorced) live in the UK for a period of three years and both parents (unless one parent has died) consent.

Accordingly, ASAN01b for the UK is 1 – 0.25 (not to parent born abroad) x 0.5 (procedure to overcome exclusion is more cumbersome) = 0.88

The UK overall ius sanguinis indicator (ASAN) then is 0.5(ASAN01a + ASAN01b) = 0.94

3.2 Ius soli

Acquisition of citizenship by birth in a territory, ius soli, is assessed in five basic indicators. These are for ius soli at birth for the second generation (ASOL02a) and third generation (ASOL02b), for foundlings (ASOL03a), otherwise stateless children (ASOL03b), and ius soli after birth (ASOL05). There are two combined indicators, ASOL, combining the main indicators at birth (ASOL02a and b); and finally an overall ius soli indicator, which combines all the results. Here we first we consider the principal forms by which citizenship is awarded on this ground – second and third generation birth in the country, followed by ius soli after birth, and finally the minor elements, foundlings and otherwise stateless persons. As in the case of ius sanguinis, the first table lists the conditions restricting the provision and the relevant deductions, and (where applicable) the second table lists the procedures for overcoming these with the reduced weighting that applies to the deductions.

ASOL02a—IUS SOLI AT BIRTH FOR 2nd GENERATION

MATERIAL CONDITIONS

Unrestricted ius soli	–0
Registration or declaration required	–0.25
parental residence of up to 5 years is required	–0.25
parental residence of 6 to 10 years is required **OR** permanent parental permanent residence permit or equivalent is required	–0.5
parental residence of more than 10 years is required	–0.75
No provisions	–1

ASOL02b—IUS SOLI AT BIRTH FOR 3rdGENERATION (DOUBLE IUS SOLI)

MATERIAL CONDITONS

Unrestricted ius soli	–0
Registration or declaration required	–0.25
Parental residence of more than 1 year or specific residence permit required	–0.25
Requirement for birth in the country of both parents	–0.5
No provisions	–1

For ius soli, while no country in our sample now has pure ius soli (and many countries have no such provision except for foundlings and stateless children), we can identify a fairly straightforward example to consider first.

In Ireland, a child born in the country becomes a citizen on that account automatically if one parent has permanent residence (in Ireland or the UK), or has been resident for three out of the last four years (simplifying slightly for this presentation).

Thus the indicator for ius soli at birth for the second generation (ASOL 02a) comes out as follows:

1 (some provision) –0.25 (parental residence of up to 5 years is required) = 0.75

Ireland has no provision for third generation ius soli (ASOL02b), so has a score of 0 for this indicator.

Thus on the basis of the formula, ASOL02 = 1– (1–ASOL02a)(1– 0.5 ASOL02b), for ius soli at birth (ASOL02) Ireland has a score of

1– (1 – 0.75)(1 – 0.5 x 0) = 0.75

The Netherlands provides an example of an alternative approach; here there is no provision for second generation ius soli at birth. Thus the indicator score for ASOL02a = 0. The Netherlands has, however, a provision for ius soli for the third generation. A child born to a parent him/herself born in the country automatically becomes a citizen at birth (ASOL02b) (third generation). Hence the ASOL02b indicator is 1.

Further, on the basis of the formula, ASOL02 = 1– (1–ASOL02a)(1– 0.5ASOL02b), the Netherlands has a ASOL02 score of

1– (1 – 0)(1 – 0.5 x 1) = 0.5.

In addition to these two modes at birth, ius soli citizenship may be acquired at some point after birth. This mode, ASOL05, is found in a number of countries without provisions for ius soli at birth (as well as in some countries which do have such provisions). The first table below gives the material conditions, followed in this case by the more specific coding for the facilitated naturalisation, designed to reflect the great variation in stringency of this procedure.

ASOL05—IUS SOLI AFTER BIRTH

Default assumption for procedure: declaration or registration

MATERIAL CONDITIONS

Least restricted (acquisition possible after age ten or earlier and residence requirement in the country of no more than 5 years)	–0
Residence of 5 – 10 years required	–0.25
Continuous residence of more than 10 years required	–0.5
Parental residence requirement (years or specific permit)	–0.25
Minimum age 18 or higher	–0.25
Naturalisation with less onerous conditions (significant exemptions from requirements for ordinary naturalisation)	–0.25
Naturalisation with more onerous conditions (procedure similar to that for ordinary naturalisation)	–0.5

	MORE ONEROUS (TP has to fulfill most of the ordinary naturalisation conditions)	LESS ONEROUS (TP is exempted from many of the ordinary naturalisation requirements)
Language Requirement	Proficiency test	Schooling in the country fulfills or exempt
Citizenship test/integration requirement	Test/assessment	Schooling in the country fulfills or exempt
Economic resources requirement	Additional requirements (employment, higher level of income, no use of social benefits)	No requirement Minimum income
Criminal record requirement	conviction with sentence of less than 5 years	No conviction with sentence of 5 years or more or exempt
Good character clause	Stronger good character requirement	Basic or exempt
Renunciation requirement	Yes	No requirement or exemptions

For example, in Italy, the indicators for ASOL02a and ASOL02b are both 0. Citizenship under ASOL05 is available by declaration at age 18 by persons born in Italy who have been continuously resident, or by a discretionary naturalisation procedure if they have been resident for 3 years. This produces a score of 1 – 0.5 (continuous residence of more than 10 years required) – 0.25 (minimum age 18 or higher) = 0.25.

A similar outcome can result from facilitated naturalisation. In Austria, there is also no provision for ius soli at birth, but birth in the territory qualifies a person for an entitlement to naturalisation after six years of residence (compared to ten years for ordinary discretionary naturalisation). Applicants still have to meet most substantive conditions for naturalisation. We code this case as follows:

1 – 0.25 (residence of 5 – 10 years required) – 0.5 (more onerous conditions for naturalisation) = 0.25

In addition to the general ius soli provisions for citizenship at and after birth, we have seen that ius soli for foundlings (available in all countries in our sample except Cyprus) and for otherwise stateless children (subject to more restrictions) have to be incorporated in order to calculate an overall ius soli indicator. Here are the coding principles applied in these modes.

ASOL03a—FOUNDLINGS

MATERIAL CONDITIONS

Unrestricted ius soli for foundlings	–0
Age limit for person higher than one year	–0.25
Age limit for person one year or less	–0.5
No provisions	–1

ASOL03b—STATELESS AT BIRTH

MATERIAL CONDITIONS

unrestricted ius soli for persons stateless at birth	–0
only if no other citizenship is available (or if person is born to stateless parents [or mother if out of wedlock] or parents of unknown citizenship)	–0.25
minimum age or residence requirements for person	–0.25
parental residence period or status requirement or if parent must have been born in the country	–0.5
only through facilitated naturalization	–0.75
no provisions	–1

As well as Cyprus, other countries in our sample that receive a score of less than 1 on citizenship for foundlings are Austria, Ireland, Malta and Portugal. The reason is that these persons receive citizenship iure soli only if they are younger than six months when found. The score for these countries is thus

1 – 0.5 (age limit for TP of less than 1 year) = 0.5

There are other states that restrict ius soli acquisition by otherwise stateless children. With some exceptions we qualify these restrictions as minor ones that result in a score of 0.75. The most restrictive are the Czech Republic, Denmark, Estonia, Latvia, and Lithuania, with a score of 0.25. In Denmark, such children are only granted facilitated naturalisation, with the facilitation being that they are exempted from language and integration requirements. In the Czech Republic, the parents of the child must be stateless and at least one parent must have a permanent residence permit. The Czech score is therefore

1 – 0.25 (only if person is born to stateless parents) – 0.5 (parental residence status requirement) = 0.25.

When these two indicators for foundlings and stateless children are included, a score for overall ius soli can be calculated.

The formula for overall ius soli is

$$ASOL = 0.85\ (1 - (1 - ASOL02)\ (1 - 0.5\ ASOL05)) + 0.05\ ASOL03a + 0.1\ ASOL03b.$$

In the cases considered above, when we make provision for foundlings and stateless, for which Ireland has full provision, the overall ius soli score, based on the formula, is 0.79. For the Netherlands (which requires a residence of 3 years for otherwise stateless children (giving a ASOL03b score of 0.75)), the score is 0.60. In Italy, (which restricts ASOL03b to those who cannot claim any other citizenship), the overall ius soli score is 0.23.

To look at the other end of the scale, Cyprus has no ius soli provisions and receives a score of 0. Malta's score of 0.10 reflects limited provisions and only for foundlings and stateless children. A number of countries cluster on an overall ius soli score of 0.13. This comes about from having no ius soli apart from foundlings and a provision for stateless children that has restrictions comparable to those of Netherlands or Italy (i.e. Iceland, Macedonia, Montenegro, Sweden and Turkey).[8]

For ius sanguinis, many countries cluster at or approach 1; the lowest scores are Malta (0.47) and Austria (0.63). There is more variation among countries with respect to ius soli. For ius soli, the scores range from Cyprus (0) up to France (0.73), Ireland and Portugal (0.79), the nearest to a cluster being in the 0.70 to 0.80 range, where we also find Belgium, Greece and Moldova.

[8] Sweden does however have provision for an equivalent of A05 based only on residence in the country, so is otherwise somewhat different from the other countries in this list.

4. Naturalisation Indicators

In this section we present some of the results of applying these procedures to produce indicators for ordinary, residence-based naturalisation and special forms of naturalisation that give certain groups preferential access to nationality.

4.1 Ordinary Naturalisation

Every country in our sample allows for the acquisition of citizenship by residence-based naturalisation. There is significant variation across our sample, however, in the length and type of residence that is required for naturalisation and the presence and degree of additional conditions for naturalisation.

We offer separate indicators for the main conditions for ordinary naturalisation. We provide here for reference the coding principles for ordinary naturalisation (ANAT06) and its sub-indicators: residence requirements (ANAT06a), renunciation requirements (ANAT06b), language requirements (ANAT06c), civic knowledge and cultural assimilation conditions (ANAT06d), criminal record conditions (ANAT06e), and economic resources requirements (ANAT06f).

ANAT06a—ORDINARY NATURALISATION – RESIDENCE CONDITIONS

We group together conditions for ordinary naturalisation that refer to residence. Although these are composed of three main components – duration of residence, treatment of interruptions of residence, and residence status – we feel that it is not necessary to include each of these separately as basic indicators, since the underlying purpose (scope of territorial inclusion, residence as proxy for social ties) and effect of all three is similar. Users who want to compare countries on overall length of residence and interruptions can refer to MIPEX III. Users who want to compare only the residence period specified in citizenship laws should refer to our comparative database on modes of acquisition and there select mode A06.

For each country we produce a weighted overall duration of required residence (Q) taking account of the impact of requirements for continuity of residence and for having acquired permanent residence status before naturalisation.

Step 1: Taking account of continuity of residence requirements

Where there is a requirement of continuous residence, the total elapsed waiting period for naturalisation becomes longer for any migrant whose residence has been interrupted. We take this into account by adding up to half of the years of the basic residence requirement (R) to obtain a continuity adjusted residence requirement (R*). Specifically, the weights we attach to R in order to obtain R*are as follows:

Weights for requirements of continuity in residence

Number of years of continuous residence required as a percentage of the basic residence requirement	Weight
more than 75% or unspecified in law	1.5
between 25% and 75%	1.25
less than 25%	1

Step 2: Taking account of requirements for 'permanent residence' status.

When considering the residence requirements for naturalisation we also need to take into account that in many countries immigrants must have been granted 'permanent residence' status for all or part of the residence period counting towards naturalisation.

We add (to the continuity-adjusted residence requirement (R*)) a number of years reflecting the additional overall elapsed time that may be entailed by the time taken to gain a permanent residence permit (A).

Thus, the number of years we add is equal to the sum of the waiting period A before a permanent residence permit can be acquired and the duration of permanent status required P, minus the basic residence requirement R.

(We add years only if this sum is positive: when it is negative, it means that the requirement of permanent status need not add to the total elapsed time. Thus, for example, simply requiring permanent residence status to be attained at the time of naturalisation does not add to the overall length of residence if the wait for permanent status is shorter than the basic residence requirement.)

For many countries, the waiting period A is not known. For these we assume A=5 years.

The weighted overall duration Q is thus:

$Q = R^* + \max \{A + P - R, 0\}$.

In all cases, we impose 20 years as the maximum for Q, even if this formula gives a higher number.[9]

This works out as follows:

- In countries where a permanent residence status is required for the whole period counting towards naturalisation, P=R, hence we simply add A (usually 5 years) to the continuity adjusted residence (R*)

  $Q= R^*+ A$

  e.g. Poland, where the basic residence requirement R is 5 years, over 75% of which must be continuous, R*=7.5. Furthermore, permanent residence status is required for the whole period.

  $Q = 7.5 + 5 = 12.5$

[9] This prevents the final indicator being unduly influenced by a large outlier country.

- In countries where a permanent residence status is required only at the time of application, the effective residence period is whichever is longer – the basic residence requirement period (R) or the waiting period for permanent status (A). Thus if A (usually 5 years) is greater than the basic residence requirement, we add the difference between the two.

  e.g. Germany, where the basic residence requirement is 8 years, over 75% of which must be continuous, so R* = 12, but permanent residence status is required only at the point of application (meaning that we add 0).

  Hence Q = 12 + 0 = 12

- In countries where a permanent residence status is required for a period which is shorter than the basic residency requirement, but, when taken together with the waiting period before permanent status is acquired, this entails a longer total elapsed period than the basic residence requirement R we add the additional period entailed.[10]

  e.g. Finland, where the basic residence requirement R is 5, over 75% of which must be continuous, R* is 7.5; permanent residence is required for 1 year, so, assuming the waiting period for permanent status A is 5:

  Q = 7.5 + 5 + (1-5) = 8.5

  e.g. Estonia, where the basic residence requirement, R is 8, between 25% and 75% of which must be continuous, R* is 10; permanent residence is required for 5 years, so, assuming the waiting period for permanent status A is 5:

  Q = 10 + 5 + (5-8) = 12

Step 3: Final score for the indicator of weighted overall duration of required residence

The final indicator represents the country's relative position on a scale between 0 and 1. It does so by equalling the difference between the country's overall weighted duration of required residence and that of the maximum duration country, all divided by the difference between the maximum and minimum durations.

Final indicator score ANAT06a = (max – overall weighted duration of required residence Q) / (max-min)

Once we have considered allowed interruptions and permanent residence requirements, the weighted overall residence required in our sample for 2011 ranges from 3 to 20 years.

Belgium, with the shortest residency requirement of any country in our 2011 sample therefore receives a score of 1 for ANAT06a. Applicants can apply for naturalisation after three years of residence in Belgium. Neither continuous nor permanent residence is required. Q for Belgium is 3. At the other end of the scale is Moldova, which scores 0 for ANAT06a. In Moldova, an individual must reside in the country habitually, uninterruptedly, and with a permanent residence permit for 10 years prior to the application for naturalisation. The weighted overall length of the residence requirement for Moldova is therefore

[10] In cases where we know that there is a fraction of the period required as permanent, but do not have the exact figure, we add the mean (2.5).

10 (years required) x 1.5 (weight applied if period of continuous residence is not regulated in the law) + 5 years (permanent residence permit required for all 10 years of residence counting towards naturalisation) = 20 years weighted overall residence

ANAT06a scores for the other countries in our sample are derived based on the minimum of three years and the maximum of 20 years.

Ireland, for example, requires five years of residence for naturalisation. The year prior to the application must be uninterrupted, but there is no permanent status requirement. The overall weighted duration of required residence equals the continuity adjusted duration which is calculated as 5 (years required) x 1 (less than 25 per cent of residence must be uninterrupted) = 5.Therefore the final indicator score ANAT06a for Ireland = [20 (max)– 5] / [20 (max)-3 (min)] = 0.88

ANAT06b—ORDINARY NATURALISATION RENUNCIATION CONDITION

This is not a general toleration of dual citizenship indicator. As discussed above in section 1.2 such an indicator will have to combine dual citizenship at birth, renunciation requirements in naturalisation and loss in case of acquisition of a foreign citizenship. For acquisition indicators we can only take into account renunciation conditions for incoming naturalisations (of foreign citizens in the country).

no renunciation requirement	–0
formal renunciation requirement generally not enforced	–0.25
no renunciation requirement in case of unreasonable burden or high costs	–0.5
renunciation required except where no release by country of current citizenship or otherwise not possible	–0.75
no exceptions to renunciation requirement specified in the law	–1

These conditions must be treated non-accumulatively. There is one single deduction per country based on the least restrictive renunciation provision or most generous exception.

Eighteen countries in our sample do not require renunciation for naturalisation. Several countries require renunciation but make exceptions in certain circumstances. For example, German law requires renunciation for naturalisation but there are generous exceptions to this rule, resulting in an ANAT06b score of 0.5 for Germany. Bulgaria, Estonia, Latvia, and Lithuania receive scores of 0 for ANAT06b because renunciation is required without exception for naturalisation in these countries.

ANAT06c—ORDINARY NATURALISATION LANGUAGE CONDITION

no language condition in the law	–0
language condition with specified low level of requirement (A1 or everyday communication) or progress required in language learning – independently of whether informal condition, formal certification or formal test	–0.25
without tests or certification and discretionary assessment of level of competence or with certification and specified level of competence at A2	–0.5
with certification or test at level B1	–0.75
with certification or formal test at level B2 or higher or tests with writing component	–1

These conditions must be treated non-accumulatively. There is one single deduction per country based on the least restrictive provision or most generous exception.

ANAT06d—ORDINARY NATURALISATION CIVIC KNOWLEDGE AND CULTURAL ASSIMILATION CONDITIONS

no naturalisation test or cultural assimilation condition	–0
general cultural integration/assimilation condition, also if assessed informally during an interview	–0.25
no naturalisation test as part of the application procedure, but requirement to take (less onerous or expensive) courses/provide certificates on civic and cultural knowledge	–0.5
Formal naturalisation test containing civic and cultural knowledge questions, not very demanding with questions and study material available and/or exemptions for applicants who have attended schools in the country; or alternative of more onerous or expensive course.	–0.75
Formal naturalisation test containing civic and cultural knowledge questions, more demanding or questions and study material not available or no exemptions for applicants who have attended schools in the country	–1

These conditions must be treated non-accumulatively. There is one single deduction per country based on the least restrictive provision or most generous exception.

ANAT06e—ORDINARY NATURALISATION CRIMINAL RECORD

no criminal record or good moral character condition	–0
no crimes carrying sentences of 5 years and more OR more demanding conditions, but longer qualifying period instead of exclusion from naturalisation	–0.25
basic good character requirement commonly used also for citizens OR no crimes carrying sentences of more than 1 and less than 5 years	–0.5
specific good character clause applying only to naturalisation applicants OR no crimes carrying sentences of less than 1 years	–0.75
absence of criminal sentences or misdemeanours punishable with 3 months or less (or equivalent penalty)	–1

These conditions must be treated non-accumulatively. There is one single deduction per country based on the least restrictive provision or most generous exception.

ANAT06f—ORDINARY NATURALISATION ECONOMIC RESOURCES

no requirement on income, employment, or welfare dependency	–0
Income requirement at level of minimum wage or official poverty line: no exclusion for past welfare dependency or unemployment	–0.25
Income requirement at level higher than minimum wage or poverty line: no exclusion for past welfare dependency or unemployment	–0.5
Includes employment condition or no welfare dependency ONLY at time of application	–0.75
includes employment condition or no welfare dependency for SEVERAL years before application	–1

These conditions must be treated non-accumulatively. There is one single deduction per country based on the least restrictive renunciation provision or most generous exception.

ANATORD—ORDINARY NATURALISATION

For calculating a general indicator for ordinary naturalisation we use a weighted average of the six basic indicators that measure the most common naturalisation conditions. Since ordinary naturalisation is by definition based on residence in the country, the residence criterion should receive more weight than any of the other conditions. We further think that the requirements of renouncing a foreign citizenship should be weighted more strongly than the remaining criteria of language skills, civic knowledge and cultural assimilation, absence of criminal record and sufficient economic resources when these are taken separately. Taken together, however, these qualifying conditions receive as much weight as the residence condition and double the weight of the renunciation condition.

A final consideration is that we need to take into account that ordinary naturalisation is in most cases a discretionary grant by the authorities, but in some countries it is an individual entitlement of the applicant who meets all conditions. Because our six basic indicators for ordinary naturalisation represent different conditions for a single mode of acquisition rather than six different modes, we cannot take into account the procedural distinction between discretion and entitlement at the level of basic indicators. We apply it instead only to the combined ANATORD indicator by increasing the score by a weight of 1.25 for those countries where naturalisation is an entitlement.

ANATORD (DISCRETIONARY) = 0.4 ANAT06a + 0.2 ANAT06b + 0.1 ANAT06c + 0.1 ANAT06d + 0.1 ANAT06e + 0.1 ANAT06f

ANATORD (ENTITLEMENT) = 1.25 x (0.4 ANAT06a + 0.2 ANAT06b + 0.1 ANAT06c + 0.1 ANAT06d + 0.1 ANAT06e + 0.1 ANAT06f

4.2 Special Naturalisation

We have created 16 basic indicators that measure the strength of the purpose of provisions that offer certain categories of persons privileged access to citizenship based on their special ties or contributions to the country.

Family relations between a naturalisation applicant and a citizen of the country or another person applying for naturalisation are the most common reasons why states provide easier access to citizenship. Our modes of acquisition typology distinguishes six modes of family-based naturalisation that we code as different basic indicators and group together as an intermediate indicator ANATFAM. Some countries also provide privileged access to nationality on the basis of ethnic, cultural, or historical ties or as a reward for contributions to the country. In a last step we aggregate all special naturalisation indicators into a general indicator for special naturalisation. Although the public policy purposes for granting easier access to citizenship are very diverse, it is instructive to compare countries where many different categories get significantly easier access to citizenship, i.e. those who score high on ANATSPEC, with countries where exemptions are few and conditions more similar to ordinary naturalisation.

Special forms of naturalisation are often stated as a legal entitlement for those persons who meet the substantive conditions. We therefore assume acquisition by declaration or

entitlement as the default case and increase the deductions through multiplying them with a weight in case of discretionary decisions by the authorities.

In all modes of naturalisation we tend to find reservations that have to do with general security concerns of the state. Since these restrictions are nearly universally applied, we do not consider them as reasons for lowering the score of a country. This is expressed in the coding rule tables for special grounds of naturalisations through a line stating that security-related conditions lead to a deduction of 0.

ANAT07—SOCIALISATION

The first ground for facilitating naturalisation for which we create an indicator is socialisation in the in the country through residence before the age of majority. Countries that provide an entitlement for naturalisation of minors after a comparatively short residence period in the country effectively compensate thereby for a lack of ius soli at or after birth and even include the so-called generation 1.5, which was born outside the country but immigrated (mostly with their parents) at an early age. However, most countries without ius soli do not provide for socialisation-based facilitated naturalisation , while in others access to citizenship on this ground is only granted by discretion and after relatively long residence requirements. These are the substantive and procedural conditions that we take into account when coding ANAT07.

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

residence requirement of no more than 5 consecutive or 8 overall year	-0
available before age of majority	-0
security-related conditions	-0
residence requirement of more than 5 consecutive but less than 8 consecutive years or 8 overall years but less than 10 overall years	-0.25
residence requirement 8 or more consecutive years or 10 or more overall years	-0.5
available only at or after age of majority	-0.25
renunciation required and/or additional non security-related conditions	-0.25

Weight applied if naturalisation is discretionary

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

Family-based special naturalisation

A whole series of indicators deals with family-based naturalisation. There are two different ways in which family relations can be taken into account in naturalisations: by transfer of citizenship from an anchor relative who is a citizen of the country, or by simultaneous extension of naturalisation of an anchor person to other family members. In our sample, these modes of acquisition can be applied either to spouses/partners or to minor children of the anchor person, but not to siblings or parents. This results in four main indicators: ANAT08 (transfer to spouses of citizens), ANAT09 (transfer to children of citizens), ANAT13 (extension of naturalisation to spouses or partners), ANAT14 (extension of naturalisation to minor children). In addition to these, we also take into account special provisions for transfer to adopted children of citizens (ANAT10) and to the spouses, children or grandchildren of former or deceased citizens (ANAT12). These six basic indicators for family-based naturalisation are combined into an intermediate indicator ANATFAM that measure how strongly a country privileges naturalisation applicants on grounds of family ties.

ANAT08—TRANSFER TO SPOUSES OF CITIZENS

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

residence/marriage requirement of up to 3 years	-0
security-related conditions	-0
residence/marriage requirement of more than 3 but less than 5 years	-0.25
residence/marriage requirement of 5 or more years or permanent residence permit required	-0.5
Person has child with spouse	-0.5
renunciation required and/or additional non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT09—CHILD TRANSFER

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

Person is child of parent who has acquired citizenship of the country by naturalization	-0
security-related conditions	-0
residence requirement of up to 3 years	-0.25
residence requirement of more than 3 years	-0.5
Person is born in the country	-0.5
age maximum (less than age of majority) or minimum (age of majority)	-0.25
renunciation required and/or additional non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT10—TRANSFER ADOPTED CHILD

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

Person has been adopted by a citizen of the country	-0
security-related conditions	-0
residence requirement of up to 3 years	-0.25
residence requirement of more than 3 years	-0.5
Person and/or parent of person were born in the country	-0.25
age maximum (less than age of majority) unless adult option	-0.25
time limit	-0.25
renunciation required and/or additional non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT12—DESCENDANTS FORMER CITIZENS

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

Person has a grandparent or more distant ancestor who is proven to be a citizen of the country	-0
security-related conditions	-0
only available for 2nd generation descendants (parent was citizen of the country)	-0.25
residence in the country required	-0.25
former citizen was born in the country	-0.25
age maximum	-0.25
renunciation required and/or additional non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT13—SPOUSAL EXTENSION

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

residence/marriage requirement of up to 3 years	-0
security-related conditions	-0
residence/marriage requirement of more than 3 but less than 5 years	-0.25
residence/marriage requirement of 5 or more years or permanent residence permit required	-0.5
renunciation required and/or additional non security-related conditions	-0.25
anchor spouse acquires citizenship through modes different from ordinary naturalisation	-0.75

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT14—CHILD EXTENSION

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

Person is child of parent who acquires citizenship of the country by naturalisation	-0
Person is resident at time of application	-0
security-related conditions	-0
residence requirement of up to 2 years	-0.25
residence requirement of more than 2 years or permanent residence required	-0.5
Person is born in the country	-0.25
age maximum (less than age of majority)	-0.25
only if parent acquires citizenship through modes different from ordinary naturalisation	-0.5
renunciation required and/or additional non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANATFAM—NATURALISATION FAMILY MEMBERS

As explained above, the four main family-based modes of naturalisation are clearly more important as indicators for the strength of recognition of family ties in a naturalisation regime than the more exceptional provisions for adopted children or relatives of former and deceased citizens. Therefore we give double weight to the former compared to the latter indicators when calculating a combined (intermediate) indicator for family-based naturalisation.

ANATFAM = 0.2 ANAT08 + 0.2 ANAT09 + 0.1 ANAT10 + 0.1 ANAT12 + 0.2 ANAT13 + 0.2 ANAT14

ANAT16—REACQUISITION

Many countries facilitate reacquisition of citizenship by former citizens. Our indicator captures variations due to the required length of earlier possession of citizenship and other restrictions, such a condition of birth in the country and of current residence or of renunciation of another citizenship, as well as conditions applying to the circumstances of the previous loss of citizenship. These include a requirement that the person lost citizenship as a minor or due to marriage or that citizenship was lost under a previous legal regime that had, for example, foreseen automatic loss in case of acquisition of a foreign citizenship.

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

Person lost citizenship of the country due to renunciation, long-term residence abroad, or acquisition of a foreign citizenship	-0
security-related conditions	-0
Person was citizen for 5 or more years	-0.25
Person was citizen for 10 or more years	-0.5
Person was born in the country	-0.25
residence requirement of more than 1 year	-0.25
only if citizenship was lost when TP was minor OR due to marriage	-0.5

renunciation required and/or additional non security-related conditions	-0.25
only if citizenship was lost under previous regime	-0.5

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT18—CITIZENS OF SPECIFIC COUNTRIES

Facilitated naturalisation may also be offered to citizens of specific countries. The rationale for this provision is often that historic ties (e.g. to former colonial countries) or current international associations between states justify easier access to citizenship, specifically where international agreements foresee free movement rights on a basis of reciprocity. For coding this indicator we assume that the most inclusive provision is a naturalisation entitlement that applies to all EU/EEA citizens, requires a residence period of no more than 5 years and imposes no other restrictions than security-related ones. Privileged access to citizenship for a smaller number of countries, on a condition of reciprocity or with additional individual requirements for applicants reduce the score for this indicator.

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

All EU/EEA citizens	-0
residence requirement 5 years or less	-0
security-related conditions	-0
citizens of specific other countries (Nordic countries, British Isles, former colonies, bilateral agreements, etc.)	-0.25
residence requirement of more than 5 years	-0.25
renunciation required and/or additional non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT19—CULTURAL AFFINITY

ANAT19 is an indicator for facilitated naturalisation of persons regarded as sharing ethnic descent or cultural and historic identity with the majority population of the country. The most inclusive provisions that receive a score of 1 are those that require only a proof of origin, descent or ethnicity or citizenship of a co-lingual country, a residence of no more than 5 years and otherwise only security-related conditions. Some states apply such policies only to ethnic kin minorities in specific other – mostly neighbouring – states. Deductions are applied where such privileged access is granted only to kin minorities in neighbouring states or other specific countries with which the state has historical ties, where birth in the country or residence for more than 5 years is required or where renunciation of another citizenship is required. The principle of cultural affinity is clearly less strong in justifying such privileges where access is granted only to kin minorities who would otherwise remain stateless, which is why the deduction is higher in this case.

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

origin, descent or ethnicity of the country required	-0
Person is citizen of country with the same national language	-0
residence requirement up to 5 years	-0
security-related conditions	-0
residence requirement of more than 5 years	-0.25
only from co-ethnic region in neighbouring country or only citizens of specific countries only (historic relations)	-0.25
birth in the country	-0.25
Person does not possess other citizenship	-0.5
renunciation required and/or additional non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT20—GOOD FAITH CITIZEN

The complexity and fluidity of citizenship laws sometimes leads to situations where a person assumes she or he is a citizen and is also treated as such by public administrations, but where a legal inquiry leads to the conclusion that the person has no valid legal title to citizenship. A number of states recognize that in such cases, the person should not have to carry the consequences of non-citizenship, which have in some cases resulted even in a loss of residence permit. We have therefore created an indicator for access to citizenship for presumptive or "good faith" citizens. The coding rules are similar to those applied to other special naturalisation provisions.

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

Person has been treated as presumed citizen or has acted as citizen in good faith for five years or less	-0
security-related conditions	-0
Person presumed citizen for more than 5 years	-0.25
Person is born in the country	-0.25
renunciation required and/or additional non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT21—VERY LONG RESIDENCE

A few countries in our sample have special provisions for persons with a substantively longer residence period than that required for ordinary naturalisation. In these cases, some or most of the qualifying conditions for ordinary naturalisation are waived.

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

Person has resided in the country for 12 years or less	-0
security-related conditions	-0
Person has resided in the country for more than 12 years	-0.25
age minimum	-0.25
renunciation required and/or non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT22—REFUGEES

The Geneva Refugee Convention of 1951 states in Article 34 that "the Contracting States shall as far as possible facilitate the assimilation and naturalisation of refugees." Only a few states in our sample have, however, implemented provisions in their citizenship laws that reduce a residence requirement or waive other conditions, such as renunciation of another citizenship. We capture the variation across states through deductions depending on the required duration of residence and non-security related naturalisation conditions.

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

residence requirement of 5 years or less	-0
security-related conditions	-0
residence requirement of 6 to 10 years	-0.25
residence requirement of more than 10 years	-0.5
permanent or uninterrupted residence	-0.25
renunciation required	-0.25
non-security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT23—STATELESS PERSONS

International legal norms on the prevention of statelessness and protection of stateless persons oblige states to provide citizenship to otherwise stateless children born on their territory, but are less specific with regard to duties to naturalise stateless persons after birth. We code provisions on facilitated naturalisation on grounds of statelessness in a similar way as those for recognized refugees.

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

residence requirement of 5 years or less	-0
security-related conditions	-0
residence requirement of 6 to 10 years	-0.25
residence requirement of more than 10 years	-0.5
permanent or uninterrupted residence required	-0.25
Person was born in the country OR to a citizen of C1	-0.25
Person is a minor	-0.25
non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT24—SPECIAL ACHIEVEMENTS (based on modes A24 and A26)

Several countries provide fast track access to citizenship for individuals based on special achievements in sports, arts or sciences or as having contributed to the economy of the country through large investments. In our modes of acquisition database we allow for separate comparisons of these two reasons for naturalisation (A24 and A26 respectively). Since they rely on a similar logic and are also often regulated in the same articles of the citizenship law, we have combined such provisions into a single "special achievements" indicator. The most inclusive provisions of this kind are those that define such reasons very broadly and leave thus authorities with much leeway of awarding citizenship. Where reasons are defined narrowly (e.g. by being available only for cultural achievements and not for investments or the other way round, or where there are longer residence requirements and other non-security related conditions, the score of the indicator is reduced by deductions.

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

Special achievements (including investment) or reasons for naturalisation defined broadly (unspecific or several fields of achievements)	-0
security-related conditions	-0
Special achievements defined narrowly (e.g. only for investment) or very difficult procedure	-0.25
residency requirement of 5 years or less	-0.25
residency requirement of more than 5 years	-0.5
renunciation required and/or non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANAT25—PUBLIC SERVICE

We distinguish special individual achievements or economic contributions from public service for the country by foreign citizens. In some countries, military service can be performed on a voluntary basis by foreign residents and leads to shorter residence requirements for naturalisation. Sometimes, alternative service or even appointment as a civil servant in the public administration counts as a reason for naturalisation.

No provisions = 0

Any provision = 1

Default assumption for procedure: declaration or entitlement to naturalisation

Military or civil service or other service performed for the country	-0
security-related conditions	-0
residency requirement of 5 years or less or equivalent time in public service	-0.25
residency requirement of more than 5 years or equivalent time in public service	-0.5
renunciation required and/or non security-related conditions	-0.25

Weight applied to deduction in case of discretionary decision:

weight applied to deduction	1.25
weight applied to initial score of 1 if there is no deduction	0.75

ANATSPEC—SPECIAL NATURALISATION

As we have seen, the reasons for a fast track naturalisation provisions are extremely diverse. It is therefore not easy to interpret a general purpose that states pursue when offering easier naturalisation to widely diverse categories. However, we still think that a general indicator for special naturalisation shows an important characteristic of a citizenship regime. A low score on ANATSPEC indicates that a state generally considers the conditions of ordinary naturalisation as a the main gate to citizenship through which all applicants have to pass, which is more likely if it sees itself as a country of regular immigration, whereas a high ANATSPEC indicator shows that citizenship is used a tool for many different purposes. Given that some of the special naturalisation reasons are rather marginal and can hardly be regarded as characterising a citizenship regime more broadly, we propose to calculate ANATSPEC as a weighted average over all special naturalisation indicators, in which 50% of the total weight is given to the family-related reasons for faster naturalisation, which are clearly the most important ones both numerically and in terms of the underlying naturalisation principles.

ANATSPEC = 0.5 ANATFAM + 0.05 ANAT07 + 0.05 ANAT16 + 0.05 ANAT18 + 0.05 ANAT19 + 0.05 ANAT20 + 0.05 ANAT21 + 0.05 ANAT22 + 0.05 ANAT23 + 0.05 ANAT24 + 0.05 ANAT25

5. Loss Indicators

In this section we present some of the results of applying these procedures to produce indicators for renunciation and involuntary loss of citizenship.

5.1 Renunciation

As explained in section 2.1 above, the interpretation of our scale is somewhat different for voluntary renunciation and involuntary loss. High scores for the former do not indicate strong inclusion but strong individual autonomy over retaining or renouncing citizenship. We therefore start from a maximum of unconstrained freedom of renunciation and deduct points for restrictions of this freedom.

Every country in our sample allows for the renunciation of citizenship, though several countries permit renunciation only if the individual who wishes to renounce citizenship resides abroad. There are varying degrees of restrictions, with more variation among provisions for renunciation in the country. Many countries accept a declaration of renunciation by individuals who reside abroad, but release individuals resident in the country only on a discretionary basis. We consider discretionary release as a procedural restriction on renunciation but treat it in the same way as substantive restrictions.

While our qualitative database so far contains only a single mode of loss through renunciation, we distinguish here renunciation by resident citizens and renunciation by non-resident citizens. The reasons are analogous to those for distinguishing ius sanguinis in the country and ius sanguinis abroad.

LREN01a—RENUNCIATION IN THE COUNTRY

In some countries, renunciation is available only to persons with reduced connections to the country (an annulled family relationship, family based extension) or other special circumstances. In others individual choice is limited to those born outside the country, or with no outstanding duties in the state. In a number of countries renunciation is available only by discretionary release. Our coding discriminates accordingly. No deduction is considered necessary when the only condition is that the person should have or acquire another citizenship, thus avoiding statelessness. Where there is no provision for voluntary renunciation in the country a full deduction of 1 is made.

Default assumption for procedure: renunciation by declaration

Renunciation restricted only by condition of possession or acquisition of other citizenship	-0
No provision	-1
Procedure for renunciation is discretionary release	-0.25

CITIZENSHIP CAN BE RENOUNCED ONLY IF	
Person was born outside of the country or acquired citizenship of the country by naturalization	-0.25
Family relationship of person with citizens of the country is or was annulled AND/OR	-0.5
Person acquired citizenship of the country by filial extension, declaration of parents	
Person has special circumstances	-0.5
Person has completed compulsory military service	-0.25
Person has no pending charges for a crime	
Person has no unpaid tax debts or similar duties towards the state	
Person is not holding specified public offices (including current service in the army)	
Person has no unpaid private debts or legally enforceable duties towards children or (former) spouses	

LREN01b—RENUNCIATION ABROAD

In some countries, renunciation is available only to persons who have never lived in the country, or have lived abroad for longer than ten years, or who have reduced connections to the country, or other special circumstances. In other countries, renunciation is available only to citizens born outside the country, or living abroad for some time, or to naturalised citizens. Lesser restrictions include the procedure of discretionary release, and the absence of outstanding duties in the state. No deduction is considered necessary when the only condition is that the person should have or acquire another citizenship, thus avoiding statelessness. A deduction of 1 is applied where there is no provision for voluntary renunciation abroad.

Default assumption for procedure: renunciation by declaration

Renunciation restricted only by condition of possession or acquisition of other citizenship	-0
No provision	-1
Procedure for renunciation is discretionary release	-0.25

CITIZENSHIP CAN BE RENOUNCED ONLY IF	
Person was born outside of the country or acquired citizenship of the country by naturalization	-0.25
Person has lived outside of the country for up to 10 years	-0.25
Person has lived abroad for more than 10 years; Person has never lived in the country	-0.5
Family relationship of person with citizens of the country is or was annulled AND/OR	-0.5
Person acquired citizenship of the country by filial extension, declaration of parents	
Person has special circumstances	-0.5
Person has completed compulsory military service	-0.25
Person has no pending charges for a crime	
Person has no unpaid tax debts or similar duties towards the state	
Person is not holding specified public offices (including current service in the army)	
Person has no unpaid private debts or legally enforceable duties towards children or (former) spouses	

LREN –RENUNCIATION

Many, but not all countries distinguish between renunciation of citizenship by citizens residing in the country and those residing permanently abroad. We consider the power to renounce citizenship when abroad as representing an inherently conditional mode of renunciation and thus a lesser power of the individual compared to renunciation in the country. Therefore, we give LREN01b less weight than LREN01a when we combine the two modes to produce an overall renunciation indicator: LREN = 2/3 LREN01a + 1/3 LREN01b.

LREN = 0.67 LREN01a + 0.33 LREN01b

Denmark and Sweden are examples of countries that have distinct procedures for citizens in and outside the country. Renunciation of citizenship for citizens resident in these countries is discretionary. Thus, the score for LREN01a for these countries is 0.75: 1 – 0.25 (procedure is

discretionary release). For citizens residing abroad, release of citizenship is not discretionary and cannot be denied. These countries therefore are scored as 1 for LREN01b.

The United Kingdom provides an example of a country with unrestricted renunciation. So long as a person has, or will acquire, another citizenship, citizenship of the UK can be renounced by declaration. Thus the scores for LREN01a and LREN01b, and consequently for LREN, are 1.

Italy, on the other hand, restricts renunciation inside the country to a small group of citizens. Renunciation is available only to a person who resides outside Italy, or to a person who resides in Italy that was adopted as a minor but that family relationship was annulled due to behaviour of the adoptive parent, or acquired citizenship of Italy by filial extension. Italy receives a score of 0.5: 1 – 0.5 (annulled relationship/filial extension) = 0.5.and a score of 1 for LREN01b. As a result, Italy's overall renunciation score is 0.66.

5.2 Involuntary Loss

Every country in our sample except Poland provides for the involuntary loss of citizenship in certain cases. We have identified twelve modes through which an individual can involuntarily lose his or her citizenship. These modes are here grouped into four categories of loss: loss of ties, disloyalty, noncompliance, and family-based loss. In the following sections, coding principles as well as illustrative examples are provided for each of these four categories of loss. In the case of loss, as noted above, the score of 1 represents the maximum limits on state withdrawal of citizenship, while 0 means maximum power for the state to deprive the target category defined by the respective mode of their citizenship. For coding involuntary loss we start from a default score of 0. While the definition of default varies between modes from lapse to withdrawal to nullification, in each case restrictions on the state's power to withdraw are coded as additions. In the case of loss, we further apply weighting according to the ease of the procedure an individual can follow to prevent withdrawal.

5.2.1 Loss of Ties

All countries in our sample except Poland provide for involuntary loss when genuine links to the country are assumed to have been lost. Long-term or permanent residence abroad, the acquisition of a foreign citizenship, or the establishment of a foreign citizenship are considered by many countries to constitute the loss of ties to the country. Automatic lapse of citizenship is the consequence for these actions in many countries – in this case the score is zero; when the procedure for loss is withdrawal rather than lapse, points are added to a country's score to reflect this protection available to citizens.

LWIT02—RESIDENCE ABROAD (default = lapse)

Where withdrawal is possible only if the person has limited connections with the country, and has another citizenship, the limitation of individual choice, as in renunciation, is considered less important. Where there is no provision for withdrawal, 1 is added to the score, as this represents the fullest scope for individual choice. In the case of withdrawal, the possibility of exercising preventative options is significant. Thus, as in the procedures for overcoming

limitations for ius sanguinis and explained in section 2.2.3 above, multipliers of varying strengths are applied, ranging from the case where declaration of intent to retain citizenship suffices, through cases where applying for a passport avoids withdrawal, to other more demanding or discretionary procedures. Similar considerations and a similar approach apply to loss through acquisition of a foreign citizenship (LWIT03) and the establishment of a foreign citizenship for a foundling or stateless person (LWIT14). The tables below present these modes and their coding.

Lapse if person resides abroad for a period of less than 20 years	+0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person resides abroad for 20 or more years	+0.25
Person has another citizenship	+0.25
Person and person's parent were born outside of the country	+0.25
Person has never resided in the country	+0.25

PREVENTATIVE OPTIONS:

Only declaration of intent to retain citizenship is needed	1.75
Application for passport or similar document needed; yearly action necessary; declaration or registration needed before certain age/time	1.5
Discretionary decision by authorities; judicial or administrative appeals procedure	1.25
No preventative option	1

LWITL05—ACQUISITION OF FOREIGN CITIZENSHIP (default = lapse)

Lapse upon acquisition of foreign citizenship	+ 0
No provisions	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person resides abroad	+0.25
Person was born and resides abroad	+0.5
Person acquired citizenship of the country by naturalisation, registration or declaration	+0.25
Person acquires citizenship of other country voluntarily	+0.25

PREVENTATIVE OPTIONS:

Only declaration of intent to retain citizenship is needed	1.75
Application for passport or similar document needed; yearly action necessary; declaration or registration needed before certain age/time	1.5
Discretionary decision by authorities; judicial or administrative appeals procedure	1.25
No preventative option	1

LWIT14—ESTABLISHMENT OF FOREIGN CITIZENSHIP (FOUNDLING OR STATELESS PERSON) (default = lapse)

Lapse upon establishment of citizenship at any age	+ 0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person resides outside the country	+ 0.25

Person acquired citizenship 5 or fewer years ago	+0.5
Person acquired citizenship more than 5 but less than 10 years ago	+0.25
Citizenship of both parents is established	+0.25
Citizenship is established before age 10	+0.5
Citizenship of person is established before age 18	+0.25

LWITTIES – WITHDRAWAL BECAUSE OF LACK OF GENUINE TIES

As explained in section 2.2.4, we combine the three indicators discussed in this section into an intermediate indicator that measures the strength of protection of individuals against loss of citizenship based on a presumptive lack of genuine ties. For this LWITTIES indicator we use a weighted aggregation formula that gives equal weight to loss because of residence abroad and loss because of voluntary acquisition of another citizenship, and much smaller weight to the marginal case of loss if a foreign citizenship is established for a foundling.

LWITTIES = 0.4 LWIT02 + 0.4 LWIT05 + 0.2 LWIT14

Ireland is an example of a country that provides for loss based on each of these modes, but, in the case of LWIT02 (residence abroad) and LWIT05 (acquisition of another citizenship), only for certain sub-sections of citizens. Only naturalised citizens are eligible to lose their Irish citizenship if they reside outside Ireland for seven or more years (by withdrawal, not automatic lapse). To avoid losing their citizenship, naturalised citizens living abroad can annually declare their intention to retain Irish citizenship. Thus, the LWIT02 score for Ireland is

0 + 0.25 (procedure is withdrawal) x 1.5 (yearly action necessary for prevention of loss) = 0.38

Irish citizens by naturalisation are also liable to lose their nationality if they acquire the citizenship of another country unless the acquisition is involuntary (again, by withdrawal, not lapse). Thus, the LWIT05 score for Ireland is:

0 + 0.25 (procedure is withdrawal) + 0.25 (only if Irish citizenship has been acquired by naturalisation, registration or declaration) + 0.25 (only if acquisition of other citizenship is voluntary) = 0.75.

Any citizen who acquired Irish citizenship based on his or her status as a stateless person or foundling will automatically (by lapse) lose his or her citizenship upon the establishment of a foreign citizenship. Ireland therefore receives a score of 0 for LWIT14.

Ireland's score on the combined indicator LWITTIES is 0.45.

Several countries (Bulgaria, Croatia, Hungary, Italy, Luxembourg, Macedonia, Moldova, Romania, Slovenia, Turkey and the United Kingdom) have provisions for LWIT14,

following the establishment of a foreign citizenship of a person previously considered a foundling or stateless, but allow citizens to retain citizenship despite long-term residence abroad (LWIT02) or acquisition of a foreign citizenship (LWIT05) without loss consequences. Thus, these countries have scores of 1 for LWIT02 (residence abroad) and LWIT05 (acquisition of a foreign citizenship).

5.2.2 Disloyalty

A relatively small number of countries in our sample provide for loss based on perceived disloyalty by citizens. Thirteen countries have no provisions for loss based on these grounds. Those that do impose loss on these grounds vary as to which of the following types of offences merit loss: service in a foreign army (LWIT03), public service for a foreign country (LWIT04), disloyalty or treason (LWIT07), or serious but not necessarily treasonous criminal offences (LWIT08). Several countries provide for automatic lapse as a consequence of military or public service in a foreign country. For these modes, points are added to a country's score when the procedure for loss is withdrawal rather than lapse to account for the protection available to citizens. Points are added where citizenship can be withdrawn only if a person has another citizenship, has not acquired citizenship automatically, or is in the service of a hostile foreign country. In addition, in the case of criminal offences or treason, points are added when only extremely serious offences lead to loss, where the person is a recent citizen, or lives abroad. The procedure for loss based on treason and other serious criminal offences is always withdrawal.

LWIT03—SERVICE IN FOREIGN ARMY (default = lapse)

Withdrawal if person enters foreign military without permission of the country	+0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person has another citizenship	+0.25
Person acquired citizenship of the country by naturalisation, registration or declaration	+0.25
The foreign country is a hostile country or is at war with the country	+0.25

LWIT04—OTHER SERVICE FOR FOREIGN COUNTRY (default = lapse)

Withdrawal if person enters foreign public service without permission of the country	+0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person has another citizenship	+0.25
Person acquired citizenship of the country by naturalisation, registration or declaration	+0.25
Foreign country is a hostile country or is at war with the country	+0.25
Person severely damages interests of the country	+0.25

LWITL07—DISLOYALTY OR TREASON (universal withdrawal)

Authorities have arbitrary power to withdraw citizenship	+ 0
No provision	+1
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person possesses another citizenship	+0.25
Person resides outside the country	+0.25
Person acquired citizenship of the country by naturalisation, registration or declaration	+0.25
Person acquired citizenship 5 or fewer years ago	+0.25
Country is at war with the foreign country	+0.25
Person committed international crime, terrorism crime against humanity, genocide	+0.25

LWIT08—OTHER CRIMINAL OFFENCES (universal withdrawal)

Authorities have arbitrary power to withdraw citizenship	+ 0
No provision	+1
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person has another citizenship	+0.25
Person resides outside the country	+ 0.25
Person acquired citizenship of the country by naturalisation, registration or declaration	+0.25
Person acquired citizenship 5 or fewer years ago	+0.25
Person commits serious crime	+0.25

LWITLOY – WITHDRAWAL BECAUSE OF LACK OF LOYALTY

Once again, we combine those basic indicators that aim at depriving persons of their citizenship on grounds of presumptive disloyalty into an intermediate indicator. In contrast with LWITTIES we do not see any reasons for giving unequal weight to the various basic provisions and thus calculate LWITLOY as a simple average.

LWITLOY = 0.25 LWIT03 + 0.25 LWIT04 + 0.25 LWIT07 + 0.25 LWIT08

France, Greece, Estonia and Lithuania have provisions for all four modes associated with disloyalty. Loss is least restricted in Lithuania, resulting in the lowest score of all the countries in the sample for this category, at 0.38.

For all Lithuanian citizens, service in a foreign army leads to withdrawal of citizenship. The score for LWIT03 is thus 0 + 0.25 (withdrawal) = 0.25

Unauthorised public service for another country also results in the withdrawal of citizenship. This provision leads to the same score for LWIT04:

0 + 0.25 (withdrawal) = 0.25

For naturalised citizens of Lithuania, actions directed against the independence and territorial integrity of Lithuania and certain offences associated with the past occupying regime lead to withdrawal; this results in a score of 0.25 for LWIT07.

Similarly, the conviction of serious crimes leads to withdrawal for naturalised citizens of Lithuania. Thus, the score for LWIT08 is

0 + 0.25 (applies only to naturalised citizens) + 0.25 (serious offence) = 0.5

When we turn to the combined indicator, LWITLOY, Lithuania's overall score for this category of loss, calculated as the average of scores for the four indicators in this category, is 0.38.

France has similar provisions for these four modes, but an explicit provision that allows for an exception if loss would cause statelessness for LWIT 07 and LWIT 08 leads to a higher overall score (0.50) for France for LWITLOY.

Belgium, Bulgaria, Ireland, Switzerland, and the United Kingdom have provisions for loss based on disloyalty and treason (LWIT08), but not for the other modes in this category. These countries do not provide for loss based on military (LWIT03) or public service (LWIT04) in a foreign country or serious criminal offences (LWIT08). Germany provides for loss based on military service in a foreign country (LWIT03), but has no provision for the other modes in this category. The scores for these six countries for LWITLOY are accordingly in the higher range - with Bulgaria at 0.94 and the others at 0.81

5.2.3 Noncompliance with citizenship laws

In many countries, the violation of certain citizenship laws can lead to loss. The retention of a foreign citizenship despite a renunciation requirement, or the discovery of fraud in the acquisition of citizenship can lead to loss in all but six countries in our sample (Croatia, Czech Republic, Iceland, Italy, Poland and Sweden). For these modes, points are added when the procedure is withdrawal rather than automatic lapse or nullification. In addition, points are added when citizenship can be withdrawn only from those born or living abroad.

LWIT06—NON-RENUNCIATION OF CITIZENSHIP ACQUIRED AT BIRTH (default = lapse)

Authorities have arbitrary power to withdraw citizenship	+ 0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person resides outside the country	+ 0.25
Person was born outside the country	+0.25

Loss indicator LWIT06—loss due to failure to renounce citizenship acquired at birth—is associated with the German provision requiring individuals who have acquired a foreign citizenship at birth to renounce that foreign citizenship before the age of 23 in order to retain

German citizenship. Germany receives a score of 0 for this mode. The only country with a similar provision is Lithuania, where withdrawal is the procedure, resulting in a score of 0.25; all other countries receive a score of 1.

LWIT09—FRAUDULENT ACQUISITION (default = lapse or nullification)

Authorities have arbitrary power to withdraw citizenship	+ 0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person possesses another citizenship	+0.25
Person resides outside the country	+ 0.25
Person acquired citizenship 5 or fewer years ago	+0.25

All but the six countries listed above provide for loss in the case of fraudulent acquisition of citizenship. Austria, the Netherlands, Portugal, and Spain provide for unrestricted, automatic lapse or nullification of citizenship in the case of fraudulent acquisition of citizenship, resulting in scores of 0 for these countries.

Finland, France and Germany allow for the loss of citizenship only if citizenship was acquired less than five years ago. In Luxembourg, Montenegro, and Serbia, an exception is made if loss due to fraud would lead to statelessness. These significant restrictions lead to a score of 0.50 for Luxembourg and Montenegro for this mode, the highest in this category for all countries in the sample. The coding principles used to arrive at this score are as follows:

0 + 0.25 (procedure is withdrawal) + 0.25 (only if the individual has another citizenship) = 0.50

LWIT10—NON-RENUNCIATION OF CITIZENSHIP ACQUIRED BY NATURALISATION (default= lapse/nullification)

Authorities have arbitrary power to withdraw citizenship	+ 0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	

Person resides outside the country	+ 0.25
Person has acquired citizenship of the country other than by spousal or filial extension	+0.25

Austria, Bulgaria, Estonia, Latvia, Lithuania, Montenegro, the Netherlands, Norway, Slovenia and Spain have provisions for the withdrawal or lapse of citizenship if an individual fails to renounce a foreign citizenship when acquiring the citizenship of the country by naturalisation. Austria and Montenegro make an exception for individuals who acquire their country's citizenship through marriage or filial extension, leading to a score of 0.5 for LWIT10:

0 + 0.25 (procedure is withdrawal) + 0.25 (citizenship of C1 is acquired otherwise than by marriage or filial extension) = 0.5

LWITCOMP – WITHDRAWAL BECAUSE OF NON-COMPLIANCE WITH CONDITIONS FOR ACQUISITION

As with involuntary loss on grounds of disloyalty we give equal weight to the three basic non-compliance indicators when calculating the combined LWITCOMP indicator.

LWITCOMP = 1/3 LWIT06 + 1/3 LWIT09 + 1/3 LWIT10

Lithuania, the Netherlands and Slovenia have the lowest scores for the combined noncompliance category of loss (LWITCOMP). The Lithuanian score of 0.25 reflects the state's power to withdraw citizenship for non-renunciation of another citizenship acquired at birth (LWIT06) or when naturalising (LWIT10), as well as fraudulent acquisition. The score for the Netherlands and Slovenia of 0.33 are the result of unrestricted, automatic loss in the case of fraudulent acquisition or the non-renunciation of foreign citizenship when naturalising. The highest LWITCOMP score is 0.83 for France, Finland and Luxembourg, due to the restrictions on withdrawal on the grounds noted above.

5.2.4 Family-based loss

A majority of countries in our sample have provisions for loss due to changes in the citizenship status of, or relationship with, family members. In the case that citizenship was acquired based on a relationship with a citizen family member, loss of citizenship by that family member (LWIT11, LWIT12) or annulment of the family relationship (LWIT13a) can result in automatic loss in many countries. Similarly, the adoption of a minor by foreign citizens (LWIT13b) can lead to loss of citizenship by the minor in Belgium, Germany, Lithuania, Montenegro, the Netherlands, Romania, and Switzerland. For these modes, points are added when the procedure is withdrawal rather than automatic lapse or nullification. In addition points are added when persons may be considered to have weaker ties with the

country: if they are still children, were born or live abroad, as well as in cases of fraudulent acquisition.

LWIT11—LOSS OF CITIZENSHIP BY PARENT (default = lapse/nullification)

Authorities have arbitrary power to withdraw citizenship	+ 0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person possesses another citizenship	+0.25
Person was born and/or resides outside the country	+ 0.25
Person has never resided in the country	+0.25
Both parents lose citizenship of the country	+0.25
Person is under age 10	+0.25
Loss of citizenship of the country by parent and/or person is due to fraudulent acquisition	+0.25

The lowest scores (other than cases involving fraud) of 0.25 are found in Iceland and Norway, which make exceptions for statelessness, as well as Luxembourg and the Netherlands, where, while there is no exception to avoid statelessness, loss occurs only where both parents lose citizenship. Conversely, Finland and Montenegro offer citizens significant protection from loss. Scores for both countries are calculated as follows:

Finland: 0+ 0.25 (withdrawal) + 0.25 (only if both parents lose citizenship) + 0.25 (only if parents lose citizenship due to fraudulent acquisition) = 0.75

Montenegro: 0 + 0.25 (withdrawal) + 0.25 (only if individual possesses another citizenship) +0.25 (only if both parents lose citizenship) = 0.75

LWIT12—LOSS OF CITIZENSHIP BY SPOUSE (default = lapse/nullification)

Authorities have arbitrary power to withdraw citizenship	+ 0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person possesses another citizenship	+0.25
Person resides outside the country	+ 0.25
Person has acquired citizenship 5 or fewer years ago	+0.25
Loss of citizenship of C1 by spouse is due to fraudulent acquisition	+0.5

Bulgaria and Turkey are the only countries in our sample that provide for loss based on the loss of citizenship by a spouse. These provisions apply only to individuals whose spouses lose citizenship due to fraudulent acquisition. Bulgaria and Turkey receive a score of 0.5 for LWIT12, and all other countries receive a score of 1.

LWIT13a—ANNULMENT OF PATERNITY (default = lapse/nullification)

Authorities have arbitrary power to withdraw citizenship	+ 0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN ONLY BE WITHDRAWN IF:	
Person possesses another citizenship	+0.25
Person resides outside the country	+ 0.25
Person acquired citizenship of the country 5 or fewer years ago	+0.25
Person is under age 16	+0.25
Person consents to loss (after certain age that is below 18)	+0.25

LWIT13b—ADOPTION BY A FOREIGN CITIZEN (default = lapse/nullification)

Authorities have arbitrary power to withdraw citizenship	+ 0
No provision	+1
Procedure for loss is withdrawal	+0.25
CITIZENSHIP CAN BE WITHDRAWN ONLY IF:	
Person acquires citizenship of foreign country	+0.25
Biological parent of adopted person is not a citizen of the country	+0.25
Person consents to loss (after certain age that is below 18)	+0.25

LWITFAM – WITHDRAWAL BECAUSE LOSS OF CITIZENSHIP BY RELATIVES

As in LWITTIES, a simple average score seems inappropriate for the combined indicator for family-based loss, LWITFAM. Instead, we have given most weight to the mode of loss that is most common, which is withdrawal of citizenship for children if their parents have lost this citizenship.

$$LWITFAM = 0.7\ LWIT11 + 0.1\ LWIT12 + 0.1\ LWIT13a + 0.1\ LWIT13b$$

Belgium provides for unrestricted automatic loss of citizenship for minors whose relationship with a citizen parent is annulled, regardless of the age or residence status of the minor. These countries receive a score of 0 for LWIT13a.

Finland provides minors with more protection from loss in the case of annulment of a family relationship, providing for withdrawal (+0.25) only if the minor is under the age of 16 (+0.25) and acquired citizenship of Finland five or fewer years ago (+0.25). Finland's score for LWIT13a is 0.75.

In Belgium, Germany, Lithuania, Montenegro, the Netherlands, Romania, and Switzerland, minors who are adopted by non-citizens (LWIT13b) may lose citizenship. This is automatic in Germany and the Netherlands, with exceptions only in cases of potential statelessness, giving scores of 0.25. Romanian minors must consent to loss of citizenship in the case of adoption. The score for Romania is thus 0 + 0.25 (only if the minor acquires the citizenship of the adoptive parents) + 0.25 (minor must consent to loss) = 0.5.

On the basis of our coding, scores for the combined indicator (LWITFAM) range from 0.35 in Switzerland to 0.95 in Italy and Romania to 1 in seventeen countries with no family-based involuntary loss.

LWIT – INVOLUNTARY LOSS OF CITIZENSHIP

In a final step we calculate a general indicator for involuntary loss of citizenship that is the simple average of the four intermediate indicators.

$$LWIT = 0.25\ LWITTIES + 0.25\ LWITLOY + 0.25\ LWITCOMP + 0.25\ LWITFAM$$

We find that unrestricted, automatic loss of citizenship is not common in our sample. The Netherlands receives the lowest general loss score, 0.44. Most countries receive an overall involuntary loss score of 0.75 or higher, indicating that most countries take measures to ensure that persons are deprived of their citizenship only if they lack a sufficient connection to the country. All but six countries in our sample have provisions for loss based on fraudulent acquisition, also suggesting that the absence of a genuine link is an essential criterion for loss.

6. Concluding remarks

The aim of this paper has been to explain the need for, and potential uses of CITLAW indicators and to make fully transparent how they have been constructed. A first analysis using CITLAW indicators was published in 2013.[11] The present paper should allow competent readers to assess our validity claim that these indicators actually measure the purposes of citizenship law provisions. We hope that national experts will also help us to improve reliability by checking the scores and weights that we have assigned to specific legal provisions in their country's citizenship laws against their own expertise and intuitions.

One temporary limitation must be highlighted. Some aspects of our methodology depend on inductive generalisation on the basis of our sample of countries. Just as our qualitative typology of modes of acquisition and loss may not capture all features of citizenship laws outside Europe, so our identification of the maximum or minimum points on our indicator scales may have to be revised when we include countries with provisions that fall clearly outside the range of what we have observed in Europe. However, given the extreme diversity of citizenship laws in Europe and the large size of our sample, we are confident that this problem will not be a very serious one and that most of our indicators will be suitable for new states that may be added to the sample in the future.

[11] Vink, Maarten P., and Rainer Bauböck. 2013. "Citizenship Configurations: analysing the multiple purposes of citizenship regimes in Europe." *Contemporary European Studies*, 11 (5):621-648.

Appendix:

Typology of modes of acquisition and loss of citizenship

Modes of acquisition	*ID*	*Target groups*
Birthright-based modes of acquisition by descent	A 01a	Persons born in the country to a citizen (*ius sanguinis at birth in the country*)
	A 01b	Persons born abroad to a citizen (*ius sanguinis at birth abroad*)
	A 04	Persons whose descent from a citizen is established by recognition or judicial establishment of maternity/paternity (*ius sanguinis*)
Birthright-based modes of acquisition by birth in the territory	A 02a	Persons born in the country to a foreign citizen who was born outside the country (*ius soli at birth for second generation)*
	A 02b	Persons born in the country to a foreign citizen who was born in the country (*ius soli at birth for third generation*)
	A 03a	Children found in the country of unknown parentage (*foundlings*)
	A 03b	Children born in the country who would otherwise be stateless
	A 05	Persons born in the country who acquire citizenship of the country after birth irrespective of their parents' citizenship (except those classified under A03) (*ius soli after birth)*
Basic residence-based acquisition	A 06	Persons with a certain period of residence in the country with no special status (*ordinary naturalization)*
	A 07	Persons with a certain period of residence or schooling as minors in the country (*socialization-based acquisition*)
Family-based acquisition by transfer	A 08	Spouses or registered partners of citizens (*spousal transfer*)
	A 09	Children of persons who are now citizens, but were not at the time of the child's birth (*filial transfer*)
	A 10	Children adopted by citizens *(transfer to adopted children)*
	A 11	Other relatives of citizens *(transfer to other relatives)*
	A 12	Spouses, children or grandchildren of former or

		deceased citizens (*transfer from former citizens*)
Family-based acquisition by extension	A 13	Spouses or registered partners of foreign citizens who acquire citizenship (*spousal extension*)
	A 14	Children of foreign citizens acquiring citizenship (*filial extension*)
	A 15	Other relatives of foreign citizens who acquire citizenship (*extension to other relatives*)
Affinity-based acquisition	A 16	Former citizens (*reacquisition)*
	A 17	Citizens with restricted citizenship rights
	A 18	Persons with citizenship of a particular foreign country for which special regulations apply (e.g. EU Member States, Nordic states, or countries involved in bilateral agreements)
	A 19	Persons with cultural affinity (based on their ethnicity, mother tongue, religion or similar criteria)
	A 20	Persons who acted as citizens in good faith and/or were presumed to be citizens for some time
	A 21	Persons with other special connections to the country
Other modes of acquisition	A 22	Recognized refugees
	A 23	Stateless persons or persons with unclear citizenship
	A 24	Persons with special achievements for the country
	A 25	Persons in public service of the country (military or non-military)
	A 26	Persons with special financial assets or persons who invest money in the country
	A 27	Other targeted persons

Modes of loss	*ID*	*Grounds for loss*
Renunciation	L 01a	Renunciation of citizenship in the country
	L01b	Renunciation of citizenship outside the country
Withdrawal or lapse of citizenship, or nullification of acquisition	L 02	Permanent residence abroad
	L 03	Service in a foreign army
	L 04	Employment in non-military public service of a foreign country
	L 05	Acquisition of a foreign citizenship
	L 06	Retention of a foreign citizenship by persons who have acquired citizenship of the country by birth
	L 07	Disloyalty, treason, violation of "duties as a national", terrorism, genocide or similar grounds
	L 08	Other (criminal) offences
	L 09	False information or fraud in the procedure of acquisition of citizenship
	L 10	Retention of a foreign citizenship by persons acquiring citizenship of the country by declaration or naturalisation
	L 11	Loss of citizenship by parents
	L 12	Loss of citizenship by spouse or registered partner
	L 13a	Annulment of maternity / paternity
	L 13b	Adoption by noncitizen
	L 14	Establishment of foreign citizenship of a person who acquired citizenship of the country as a foundling or as a presumptively stateless person
	L 15	Loss for other reasons

EXPLANATORY
NOTE