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WORKING PAPER

BALANCING NATIONAL OBJECTIVES AND SETTLING RIVALRIES. TOWARDS A NEW EUROPEAN ASYLUM SYSTEM?
Balancing national objectives and settling rivalries. Towards a new European asylum system?

by

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We offer a view of the Common European Asylum System (CEAS) in which the national objectives of the states emerge in terms of trade-off between control and respect of the asylum seekers' human rights. Control implies spillover of the flows towards neighbouring states and rivalries between the states in a non-cooperative game. An asylum system is a set of rules designed to settle rivalries, balancing out the national objectives. Thus, on the basis of a Pareto criterion, one system is preferred to another if all are better able to achieve their national objectives. We examine the conditions under which a relocation system based on quotas may be preferable to the Dublin rules, and why greater consideration of the humanitarian aspects of asylum can favour adoption of such a system.

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Introduction

As a result of geopolitical upheavals we have recently seen a considerable increase in flows of asylum-seekers towards Europe, taking different directions than hitherto observed. In particular, some countries on the fringes of the Schengen area have seen

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quite notable inflows, raising fears that inequality in the refugee burden borne may be further aggravated. On the evidence of Eurostat and UNHCR historical data, since the 1980s imbalance has characterised the refugee burden borne by the various states (e.g. Thielemann and Armstrong, 2013), and the data of the last few years show that not all the Member States take on the burden in similar fashion. In 2014 Germany, Sweden, France and Italy bore the weight of over 70% of all the applications in the EU-28. Germany and Sweden alone accounted for 50% of the total (Oel (2014)). In Conferences and forums\(^1\) politicians and practitioners return to the old issues, demanding greater solidarity and responsibility sharing among the Member States, contemplating forms of asylum-seeker relocation and reconsidering the idea of an explicit burden-sharing system.

It looks clear that even though solidarity features among the fundamental principles of the Union, it cannot alone ensure widespread political consensus on the part of the states (Thielemann and Armstrong 2012, Kaunert and Leonard 2012).

The reference to humanitarian principles appears to take on a certain importance in the agenda and, moreover, to be in line with the harmonisation policy pursued for some time by the Commission which had already led to recast of the Dublin system\(^2\).

One may well wonder whether the opposition of certain states to the migration agenda is dictated by scant sympathy for the rights of the asylum-seekers, or by the fact that they are at present receiving relatively small shares and are unwilling to take on greater burdens; one may also wonder whether such opposition may be mitigated by the perception that the pattern of the flows may change in the future in terms of both quantities and destinations.

A fundamental point lies in the spatial dimension of the inflows due to manifold factors of attraction and geographical proximity, which entail – given the Dublin Regulations – an asymmetrical distribution of the burden among the states; in turn, the states respond with measures to control access, endeavouring to unload the burden of asylum onto other states. From the very outset this has generated rivalry


and dispute between the states, recent events only constituting more striking evidence of the trend.

Secondly, it seems quite clear that the limited progress made were achieved subsequent to humanitarian factors. The compliance process in recent years was also driven by Germany as well as the wave of emotion with which the European populations responded to human tragedies illustrated by the media. The possibility arises that rivalries between states can be mitigated if humanitarian aspirations prove stronger than the pressure for control, in which case the states would attach less importance to the imbalances and more to the human rights of the refugees. Might not this induce the states to accept a more advanced quota system than the Dublin arrangement?

Given this state of affairs, our main concern in this paper is to clarify the nature of the criteria which the EU member states apply when choosing a quota system over the current Dublin system, and thus to specify the conditions under which the former is politically viable for them, arriving at a generally accepted solution which would reinforce cohesion in the CEAS.

Answering these questions calls for the right conceptual formulation and, given the complex interaction between the variables in play, refined tools for analysis. This paper addresses both aspects.

*Dublin versus quotas, problem and methodology*

An asylum system (i.e. Dublin Regulation or quotas) defines, among other things, the rules to distribute the burden of refugees between the member states. On the basis of the principle of first state of entry, the Dublin system has from the outset raised the issue of unfair burden bearing. Thielemann (2006a) has shown how very disproportionate the weight of receiving refugees has been. This immediately brings out the spatial component of the problem, to be associated with the pull factors that make some states relatively more attractive (Neumayer, 2004; Keogh, 2013) and factors of geographical proximity determining the country of initial entry (Thielemann, 2006a).
By contrast, a more balanced distribution is possible with a quota system, however one may wish to define it. A synthetic index could be based on size of population, size of territory and GDP per capita and other items. Such indexes were debated during the nineties (Barbou des Places, 2002; Hailbronner, 2000; Harvey, 1998; Suhrke, 1998; Schuck 1997) and are still under discussion, the way the quotas are determined affecting the interests of the individual states.

In general, we may presume that the overburdened states could be more favourable to quotas, but it is not a priori clear why the states that at present receive a lesser burden should accept such a system. This brings us back to the way the states define their asylum policies.

To this end, we will single out two factors that have for some time been at the centre of debate, namely control of the refugee flows and respect for their human rights. The latter factor, respect for rights, does not generate rivalry between the countries. Control of the flows, on the other hand, can foment rivalry amongst the states. We will in fact contend that they tend to control the flows with measures restricting access, and that these restrictions also have the effect of rerouting the asylum-seekers towards other countries in Europe, with consequent spillover effects. The other countries, equally intent on control, act upon perception of the policies pursued by their neighbours, aiming to adjust their restrictive policies in turn. This results in interdependence between the restrictive policies and creates rivalry between the countries, competing with one another in pursuit of their national control objectives in a 'beggar thy neighbour' game.

On this basis we can pursue rigorous lines of study, and go on to compare alternative asylum systems. An asylum system consists in a set of rules, and comparison is therefore made considering how the rules of the diverse systems determine different values for the objective of the various countries. In terms of game theory, we may say that a different set of rules entails differences in the final equilibriums in which countries achieve their objectives in different ways. Obviously a system prevails as long as all eventually find advantages in the common rules that override the possible conflicts. This amounts to a Pareto dominance criterion.
In this view, we are interested not only in policy convergence but more broadly on the creation of common ground: policy convergence might be obtained without the elimination of (background) conflicts over asylum policy, but better balancing conflicts in terms of the national objectives.

This view is under-researched in the literature and constitutes an original contribution. We have a substantial body of literature addressing the issue of why the various states have agreed to a common asylum system, but we contend that current approaches don’t fit the arguments above.

An approach, referred to Guiraudon (2000, 2003) and Lavenex (2006) pointed out that the Europeanisation of immigration and asylum policy gave national governments the opportunity to engage in ‘vertical forum (or venue) shopping’ so as to avoid national legal and human rights guarantees for migrants. Apart from some general criticism, this approach fails to account for the interactions and possible conflicts that may arise among countries in the European 'venue' over contrasting national objectives.

A second approach refers to the common wisdom that asylum in Europe is a public good (Thielemann and Dewan 2006; Thielemann and Armstrong 2013) and that disagreements amongst the states can be accounted for by free-riding. The idea is that asylum consists in respect of the international obligations on refugees by the states. This is related to respects of rights and constitutes a public good, for no state can be excluded from receiving refugees (non-excludability), and if a state receives refugees the possibility for other states to receive them isn’t reduced (non-rivalry). In this respect, CEAS cohesion is undermined by opportunistic behaviours, for one state may leave the burden of asylum to the others to save on the costs (political, above all) involved in receiving them (free-riding).

This approach does not consider the ‘rivalry’ amongst the states, which the term public good excludes by definition. Our approach rather suggests that there are

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3 Indeed many countries have found in Europe a less restrictive approach than they might have had without the common rules (Ackers 2005, Fullerton 2005). Moreover, Kaunert and Leonard (2012) observe, also in relation to the entire European 'system of venues', that the trend has been towards an improvement in legal standards, reducing the incentives to join the 'venue'.
elements of a private good (the control) in the production of asylum in Europe. In fact, when a state pushes back refugees rerouting them towards a neighbouring state, control improves for the former and worsens for the latter and this introduces ‘rivalry’ amongst the states. Betts (2003) for example contends that asylum policies have a private goods component and thus asylum acceptance should be regarded as joint-good production. There is a literature that differentiated since the beginning among dimensions of migration according to public/private good distinction (see Suhrke 1998 for a discussion). Roper and Barria (2010) offer an empirical though indirect verification of a private component in asylum. Our original contribution is to indicate control as the private component, joining the respect-of-rights component in a joint-good production.

As to the second aim, providing analysis tools, we supply formal, i.e. mathematical, representation of these concepts. Rivalry and the interaction amongst policies is also taken into consideration, referring to the concepts of non-cooperative games and Nash-equilibrium. We can, then, compare the Dublin system versus quotas, calculating the different equilibriums and comparing them with one another. Furthermore, we will assess how greater respect of the asylum-seekers’ rights can influence the choice of one system rather than another.

Restrictions and rights

In the asylum literature humanitarian obligations refer to decision making that takes into account sending state conditions (regime type, human rights environment). What matters here is that the asylum seekers have justifiable fears of persecution if returned to origin territories; this lies at the heart of the Geneva regime.

Thus the fundamental right is out of non-refoulement. When states determine to push back asylum-seekers, however, they are violating other rights through the deterrence measures they apply as well as other measures, as classified, for example by Thielemann (2006b) and Hatton (2009), including control of access, tightening of procedures, and restriction of integration measures. Such measures may violate the
human rights of the refugees, aggravating their conditions of life and involving various indirect forms of coercion and detention.

Obviously, not all restrictive measures prejudice the rights of asylum-seekers and refugees. For example, they may be denied such status in the light of objective conditions.

Nevertheless, it has been argued on the basis of empirical evidence that some states make an unfair use of the recognition rate for restrictive ends (Toshkov and de Haan, 2012; Holzer et al., 2000; Hatton and Williamson, 2004; Hatton, 2009; Thielemann, 2004 and 2012). The same authors have, on the other hand, criticised certain other restrictive measures as such – for example, the fast track facilities and policies that restrict movement of migrants within the country. Thus a restrictive measure may violate the refugees’ rights not only by its very nature, but also by the way in which it is applied. Brochman (1998), for instance, offers evidence on the resort to ‘implicit’ rights violation achieved with discretionary interpretation of the procedures and standards.

In order to provide formal representation of the relation between restrictions and rights we will set a value, represented with the symbol $R$, for the restrictive measures applied by a State, like e.g. an index like that formulated by Thielemann (2006a) and Hatton (2009). We will identify a value for $R$ such that it does not infringe the asylum-seekers’ rights. We will indicate this value with $\hat{R}$, representing the ‘fair value’ of restrictions applied by a state.

One approach to define the value of $\hat{R}$ may take reference from the EU legal standards, such as those contained in the EU asylum acquis. In this respect, there are reports of serious, repeated violations of the European standards by a number of countries. However, also formally legal provisions may lead to sanctions by the ECHR (European Court of Human Rights) as well as infringement procedures undertaken by the European Commission. For reference the courts generally take a certain charter, such as EUCFR (Charter of Fundamental Rights of the European Union) or ECHR (European Convention on Human Rights, 1950). This approach refers to the judicial dimension,
since it is primarily juridical actors and courts which establish whether a restriction amounts to a violation of human rights. We may interpret \( \hat{R} \) as the outcome of this dimension.

For the purposes of analysis we need an indication of the departure from the fair value, thus let's put \( r = \hat{R} - R \). Thus \( r = 0 \) is the fair value of the restriction index we take as reference. In cases of \( r < 0 \) it is understood that restrictions are underway and the refugees' rights are violated.

**Determining asylum policies**

The various countries' migration policies contain two elements in contrast with one another: on the one hand, they seek to control the number of migrants having access to their territory, while on the other hand they stress the respect for human rights inherent in the articles of their constitutions and in the sensibility of their citizens. Attention then comes to focus on the trade-off effects between the control objectives of the individual states and their humanitarian motivations regarding the rights of migrants (Lavenex 2001; Morris 2002; Joly 2004; Rush and Martin 2008). This view can be adapted to the case of asylum. Our intuition is that the trade-off is driven by restrictions: a restriction can reduce access, but at the same time may violate rights.

To represent this, let us consider first the asylum-seekers that would potentially arrive in a country if there are no restrictive policies apt to affect their destinations. This is a matter of the spatial dimension of the flows making for a country in accordance with a series of pull factors (Neumayer, 2004; Neymayer and Plümper, 2012), but also influenced by factors of geographical proximity which condition the routes (Thielemann, 2006a). We will indicate this number with \( \varphi \). Obviously, if the states apply restrictive policies, then \( \varphi \) does not represent the effective number of asylum-seekers that a state should take on.

Let us now consider a second European state in play, and indicate with a star the variables referring to it. Thus we consider the index \( r^* \) defined in a way similar to that for the first state.
As will be clear in a next section, state 1 doesn’t know the real value of \( r^* \), so consideration will focus on a forecast or a conjecture of what the restriction of the other state will be. Let’s indicate it as \( r^*(e) \).

We will indicate with \( N \) the number asylum-seekers a state expects to deal with. Obviously \( N \) depends on \( \varphi \) and on the restriction \( r \) implemented by the state and, in the presence of spillover, by the expectation of the restrictions carried out by the other state, i.e. on the value of \( r^*(e) \). As to the spillover effect and interaction between the policies of the states, they will be discussed in the following section.

Thus we can focus on the actual number \( N \) of asylum seekers arriving into a state and write \( N = N(\varphi, r, r^*(e)/s) \) where \( s = D, C \) where \( D \) refers to the Dublin regime and \( C \) to the quota system. It is worth noting that the value of \( N \) depends on the rules (implicit or explicit) which give rise to a system of burden sharing among the states. The picture thus is that, given the rules (e.g. the Dublin regulation or else quotas) the state uses \( r \) as a tool in order to shape the flows (i.e. to modify the potential flow \( \varphi \)) and reach its objectives.

To represent now the trade-off, we assume that state 1 has a target-value for \( N \), let’s indicate it as \( A_1 \). The state decides on a level of restriction \( r \) so as to attempt to maintain \( N \) as close as possible to \( A_1 \), at the same time balancing the violation of human rights implied by the restriction, namely, as long as a restriction is in place (i.e. \( r < 0 \)), with a value of \( r \) as close as possible to zero. So we assume that, for a given conjectured restriction \( r^*(e) \) by the other state, the first state sets out a policy \( r \) in order to minimize the loss function

\[
L(r, r^*(e)) = [N(\varphi, r, r^*(e)/s) - A_1]^2 + \nu r^2;
\]

(1)

As restriction increases (\( r \) negative or decreasing) \( N \) diminishes but \( r^2 \) increases; thus the two objectives clash. \( \nu \) represents the relative (first-state specific) weight so as to balance the two control and rights objectives in the trade-off. The same for the second state, which has a loss function of the type

\[
L^*(r^*(e), r^*) = [N^*(\varphi, r^*(e), r^*/s) - A_2]^2 + \nu^* r^{*2}.
\]

(2)

The way governments determine their asylum policies merits further investigation. We will follow the mainstream approach of the economic policy of migration, as in
many handbooks (e.g. Epstein, 2013). With this approach, the government interacts with the social groups concerned with migration, as well as the lobbies, movements and citizens in general. The government has electoral and economic objectives, the latter having to do with policy funding and personal interests. Moreover, the policies also depend upon the political culture of the politicians – a point that has been highlighted, among others, by Statham and Geddes (2006), who stress the role played by the élites in defining policies. The policy is chosen in accordance with the expected response of interested groups, which in turn depends upon the outcomes the groups expect of the policy. This approach places emphasis on the socio-cultural components as well as the political and economic interests that lie behind definition of a policy. It should be observed (as also Epstein contends) that there are differences between the processes that determine migration policies in general and the asylum policies. In particular, economic interests may count somewhat less, while the citizens’ sentiments (xenophobia) may pre-dominate. In this respect, Epstein stresses the importance taken on by the attitude of the voters towards refugees (Epstein, 2013, p. 418), which can be incorporated into the scheme, with a specific literature behind it (e.g. Bauer et al. 2000; Budge et al. 2001). In our model, a policy, in the scheme of equation (1) is a pair $P \equiv (A, v)$ of control targets and of the weight of humanitarian objectives, a process that sees the interests of the national actors playing an important part. However, due consideration should also go to transnational elements. A particular way of looking at this issue is to consider the weight $v$ as affected by the process of harmonisation of the standards. There is fairly general agreement that the standards have advanced in the direction of greater respect for rights (Thielemann, 2004 and 2012, Kaunert and Leonard, 2012). In any case, this trend is possible only as long as the states are prepared to accept such changes, until the clash with control objectives becomes too great. Actually, it may be argued that the recent recast of Dublin III and of the directives and regulations implies advance towards a more equitable protection of refugees' rights but they do not go far enough. In more general terms this is related to the process of compliance in international agreements, as explored e.g. by Chayes and Chayes (1993), who
stress the learning process during which national interests evolve in the direction of a broader conception more conducive to agreement. In our scheme this implies that policy parameters (in particular \( \nu \)) are also contingent on the general political context in which the asylum issue is addressed in Europe. It is beyond the scope of a single paper to dedicate specific attention to this approach, but we will add a comment in the conclusions.

Many authors recognise a certain aversion shown by the states to taking on quotas of refugees, above all for reasons of domestic politics related to the social and political costs of admitting asylum-seekers (Budge et al. 2001; Boswell 2003, Guild 2004, Thielemann 2003; Klingermann et al. 2007; Thielemann et al. 2010). For all these reasons in the following processing we will consider various possible values for \( \nu \), but will focus in particular on small \( \nu \) values.

**Policies and spillover**

One point to highlight here is that the European countries naturally form part of a common asylum system. To the eyes of asylum-seekers, one European country, given specific pull factors, can be a second-best destination, when rejected from a preferred country, and this is because many countries show similar levels of economic development and welfare, and also because they are geographically close. If a country puts restrictive measures into place, we are likely to see a shift in the flow of asylum-seekers toward neighbouring countries. So, what we see is a refugee spillover effect among European countries as a result of national policies. The possibility of restriction spillover was stressed e.g. by Toshkov and de Haan (2012) and Thielemann (2004) and (2012).

To make the point clearer, let us indicate as above with \( \varphi \) the number of asylum-seekers who wish to reach state 1. If state 1 implements a restriction \( r \) this will reduce the number. If state 2 implements restriction \( r^* \), the spillover effect will raise the number of forced migrants seeking to reach state 1. So we write the following equation:

\[
\text{For the sake of simplicity we normalize to 1 the total number of asylum-seekers coming into Europe and state } \varphi^* = 1 - \varphi (\varphi < 1).\]
\[ A = \sigma r - \lambda r^* + \varphi; \]  

where \( A \) represents the number of asylum-seekers who actually reach the country and \( \sigma \) and \( \lambda \) represent the two effects respectively. Let us observe that effect can be differentiated. For instance, the spillovers resulting when a country manipulates the asylum admissions rate (a deterrent practice as outlined by Thielemann, 2006b and others) are not equal to those resulting from alteration of migrant integration measures (language requirements, access to health care and similar). This implies that the interactions between policies are not symmetrical between states, since they depend on the nature of the restrictions implemented by each state. Expanding parameters sigma and lambda in vectorial form in equation (3), the model can take into account the differentiated and asymmetric effects of various types of policies, but here we apply a synthetic form of representation, considering an average effect of the policies. Note that as long as a restriction is in place, i.e. \( r < 0 \) then it reduces the number of asylum-seekers for state 1, whereas the other-state restriction (with \( r^* < 0 \)) entails an increase in this number. In much the same way we can write

\[ A^* = \sigma^* r^* - \lambda^* r + \varphi^*. \]  

**Strategic interaction: the non-cooperative game**

The occurrence of spillover implies strategic interaction amongst the states: each state expresses a conjecture or a forecast of what the policy of the other state will be. States form their conjectures in manifold ways. It may count official information as well as the information obtained from officials participating in European meetings – for example, in EASO – and the direct information obtained from the frontier police about the movements of the asylum-seekers, as well as the evidence gleaned in the centres for initial reception. A further source lies in the reports of humanitarian associations denouncing improper forms of refoulement. So interdependence of flows is related to interdependence of policies.

Having conjectured the policies of the other state, the state has to determine which policy to apply in response. Some authors have investigated what is known as ‘spatial policy diffusion’ (Neumayer 2004). We have a great many empirical
examples showing how policies interact with one another competitively. Barbou Des Places (2002) for instance provides evidence of the regulatory competition that arises between states. Policy diffusion may also arise from mimicking behaviour or contagion of policies—the concepts are related but not the same (Neumayer and Plümper, 2012, provide empirical findings on this).

In the model this is achieved by calculating the policy that minimises the loss; thus, in the case of loss expression (2), the interaction is determined by an optimising decision-making process which takes into account both the conjecture and the spillover parameters that appear in relation 3) (mathematical details provided in the appendix).

The way the conjecture is arrived at is an empirical issue to be studied thoroughly, and will be the object of future work. However, as we aim to study the equilibrium outcome of the game we need to know only the final actual equilibrium-value of the conjectures. According to the Nash-equilibrium definition, in fact, in the final position both the players forecast the actual value of the policy of the other, so that each state adopts a restrictive policy and this simultaneously leads to optimal achievement of the individual objectives. Formally, in our model a Nash equilibrium is a pair of policies \((r_0, r_0^*)\) such that \(r_0 = r_0^{(e)}\) and \(r_0^* = r_0^{*(e)}\) and both \(L\) and \(L^*\) are simultaneously minimized.

Of course, the values for \(L\) and \(L^*\) in equilibrium depend on the asylum regime implicit in the loss functions, as explained in a previous section. For these reasons, whatever the form the system effectively takes, it can be viewed as a set of incentives (rules) to implement an equilibrium between cohesion and rivalry amongst states. Different systems for the European asylum system, namely different rules, imply different equilibriums and thus different values for \(L\) and \(L^*\).


**Comparing alternative systems for CEAS**

For each state obviously a regime is better than another if the former implies a smaller loss than the latter. For instance, let's indicate with \(L^D\) and \(L^C\) the values of the loss under the Dublin regime and a quota regime respectively. So, quotas are preferable for this state if \(L^D > L^C\).
For the system as a whole, we can refer to Pareto dominance: a system is preferable if all (both) the states are better off. This entails unanimous consensus.

So as to stress out clearly the relevant factors, analysis refers to *ceteris paribus*, hypothesising equality between the two states, i.e. all the parameters take on equal values for the two states. If the states are equal, then a 'fair' share of asylum-seekers for each state amounts to 0.5. This situation of equality is useful as conceptual reference to analyse each of the consequences of an asymmetrical distribution of asylum-seeker flows, i.e. of $\varphi$ values other than 0.5. In fact, if the states are equal the only difference in their behaviour derives from the asymmetric value of the flows.

In the real world the situation is more complicated, of course. Some states seem to oppose the quotas, amongst them states receiving a small number of asylum seekers, but it isn't clear whether this is because they aren’t destination countries ($\varphi$ small) or because they have success in deflecting refugees by implementing substantial restrictions ($\sigma$ large), nor indeed whether the reason for their opposition is an irresponsible attitude to refugees' rights ($\nu$ very small). Our theoretical framework, calibrating the parameters, is appropriate for examination of these issues, but also empirical study is needed in order to give an estimate of such parameters. So the assumption of equality between the states can be relaxed, bearing out the validity of the results also in general cases (see Remark 1 in the Appendix).

Let us now examine the Dublin system (we will refer to it as the D system), based on the 'state of first entry' principle. This means that the burden of asylum-seekers for state 1 is simply $N(\varphi, r, r^{(e)}/D) = A$ and $N^*(\varphi, r^{(e)}, r^*/D) = A^*$ for state 2.

As regards quotas (referred to as the C system) this case entails that the total number of arrivals into Europe is shared out between the states. In the light of the *ceteris paribus* assumption we consider identical capacity for the states, so the weight is $1/2$; of course, other weights might be considered, according to the discussion in a previous section. Thus we have that $N(\varphi, r, r^{(e)}/C) = \frac{1}{2}(A + A^*)$ and also $N^*(\varphi, r^{(e)}, r^*/C) = \frac{1}{2}(A + A^*)$. Inserting the appropriate number of asylum-seekers in loss functions (1) and (2) we obtain expressions to use to calculate the equilibriums in the two cases, i.e. Dublin and quotas (details provided in the appendix).
We must now identify the key variables for comparison. In the light of the points made in the introduction, these, among other possible factors, are:

1. changes in the quantity and proportion of asylum-seekers reaching each state (spatial dimension). With our symbols, this implies changes in $\varphi$.
2. changes in the national policies implying greater respect for the refugees' rights. With our symbols, this implies an increase in the values of $\nu$ and $\nu^*$.

The method consists, then, in assuming a series of diverse values for the variables indicated above in points 1 and 2. For each value it is possible to calculate the minimum value of the loss functions of each of the two countries, in the cases of both Dublin and the quotas. This is achieved with a routine process normally used to calculate Nash equilibriums, illustrated with mathematical details in the appendix. Having established the calculation process, the simulations are performed at the numerical level using a simple Excel spreadsheet.

The results of the simulations in case 1 and case 2 are represented in the following two graphs (readers interested in a conceptual summary can go straight to the conclusions). The values of the parameters used for elaboration are shown beneath each graph and are to be considered indicative, serving solely to reflect qualitatively the present situation of the CEAS and the factors of change. The realistic qualitative hypotheses are: $\sigma > \lambda^*$ and $\sigma^* > \lambda$, i.e. there is some spillover, but not all who are rejected make for the neighbouring state; some depart from Europe. We assume, in accordance with the considerations made in a previous section, that in all the cases examined both states have restrictive aims, or in other words the values of both $A_1$ and $A_2$ are lower than 0.5.
Figure 1 shows the result obtained by each state, i.e. the loss value, for various values of $\varphi$, which represents the share of asylum-seekers headed towards state 1. To understand the graph, note that we have represented with a thin line with the loss values in the case of Dublin, i.e. the minimum values for $L^D$ and $L^D^*$, while a bold line shows the minimum loss values in the case of quotas, i.e. $L^C$ and $L^C^*$. Note that $L^C$ and $L^C^*$ are constant and take on the same value for both states. To apply the Pareto criterion we have to see when the losses of both states are lesser in the case of C than in the case of D. In the graph this comes about when all the thin lines lie above the bold line.

Parameters $\sigma=\sigma^*=0.5$; $\lambda=\lambda^*=0.4$; $A_1=A_2=0.3$; $\nu=\nu^*=0.1$
Figure 1 offers a significant indication to begin with. Note that when system C is not preferable (e.g. for values of $\varphi < \varphi_1$), the states achieve their national objectives in an imbalanced way. In fact, the state registering the higher inflow of asylum-seekers has a very considerable loss. It is in the interest of this state to move on to an explicit burden-sharing system, while the contrary applies to the other state. The reason is clear enough, and it evidences the unresolved tensions underlying the Dublin system, for it lies in the greater rivalry implied by the system, which sees spillovers having a more pronounced effect on each state's national objectives. In fact, the simulations show that the restrictions on the part of both states are more severe ($r^*$ and $r$ are comparatively smaller) in the case of Dublin than in the case of C. On the other hand, system C distributes the flows between the two states whatever their initial asymmetry. Thus a system like C implies less severe restrictions and a loss value better balanced between the two states than with the Dublin system, and to a reasonable extent it settles the conflicts between the states.

Developing the analysis in depth, we find there are two thresholds, which we indicate with $\varphi_1$ and $\varphi_2$, that delimit an interval within which C is preferable to D. Given the position of the thresholds, we see that C is preferable even if the share of asylum-seekers initially heading for state 1 is asymmetric; in fact, in the example calculation C is preferable whenever it happens that $0.3275 \leq \varphi \leq 0.6725$; thus, for example, a distribution of 33% in the first state and 67% in the second still implies the preferability of the quota system. This finding is not self-evident, since while it is reasonably clear that with a fairly symmetrical initial distribution system C may prove better, it is not immediately obvious that this may also hold for a broad situation of asymmetries.

The second question that arises now is: what happens if respect for rights is enhanced, or in other words if $\nu$ and $\nu^*$ increase? Will it reduce or increase the possibility of C being preferable to D? The answer can be seen in Figure 2.
The Figure shows the values of thresholds $\varphi_1$ and $\varphi_2$ that emerge when the values of $\nu$ and $\nu^*$ increase. The situation that interests us, in the light of the points made above, is one in which $\nu$ and $\nu^*$ are low (in the example shown in the Figure below 0.029), i.e. respect for rights takes on relatively little weight vis-à-vis the control objectives. All this holds important consequences for our analysis. In fact, it is seen in Figure 2 that, for very low values of $\nu$ and $\nu^*$, if C is to prove preferable to D the need is for the asymmetries in the initial flow distribution (i.e. the distance of $\varphi$ from intermediate value 0.5) to be fairly small (for example, if $\nu=\nu^*=0.001$ then the prospective inflow distribution must be fairly uniform – somewhere between 45% and 55% for the first state). With $\nu$ and $\nu^*$ growing, however, an improvement in the standards of rights constitutes an incentive to adopt explicit C-type burden-sharing, even if a significant inflow asymmetry persists. For example, for $\nu=\nu^*=0.029$ the
prospective distribution bearing on the first state may range between 20.8% and 79.2%. This is because greater respect for rights to some extent 'ties the hands' of the states in applying restrictive measures. Thus the control is less effective, and it is, above all, the Dublin system, which stresses the importance of control, that proves more heavily penalised, with comparatively greater losses. This result is not so straightforward, since as figure 2 reveals very large values of $\nu$ and $\nu^*$ bring about a smaller range for $\varphi$ (for a more detailed explanation see Remark 2 in the appendix).

**Conclusions**

Among the first points to note is the fact that behind the Dublin system lie unresolved tensions amongst the states. In fact, when spillover occurs it entails more extreme restrictions, each being incentivised to counteract the other states’ policies. Moreover, as long as it is in force, given the asymmetric distribution of asylum-seeker inflows towards them, the European states pursue their national objectives in somewhat disharmonious ways, the state receiving a disproportionate number of asylum-seekers achieving its goals decidedly worse than the other. This could in itself lead the state that felt it was being penalised to opt out of the common asylum system, or break the European rules. By contrast, an explicit burden-sharing system shows greater stability since the states achieve their respective national objectives in a more uniform and balanced manner, opening the way to a common system within which the rivalries amongst the states find mediation. In fact, there is less inherent rivalry in the burden-sharing system, each state having an interest in controlling the overall inflows to the whole of Europe, while the spillovers take on less importance. Thus the system can also stand up better to unbalanced flows varying over time, indirectly representing a form of cooperation (Schuck 1997). However, we need to examine the circumstances in which the states would be ready to join such a system. It may seem obvious that relocation would be accepted by the states if the original distribution of asylum-seekers were balanced among them. Nevertheless, we find that an explicit burden-sharing system is preferable for all states even if the original distribution of flows is somewhat unbalanced. This depends on the weight that respect of rights takes on in the trade-off which represents the national objectives. In
fact, we find that if more binding standards on respect for rights are implemented, it follows that a quota system is (à la Pareto) more advantageous even when the trend in flow distributions is towards greater imbalance. Indeed, to some extent greater respect for rights in the governments' objectives 'ties the hands' of the states in implementing restrictions for control purposes. Hence the Dublin system, in which rivalries between states entail a greater tightening of restrictions than a relocation system, becomes relatively more 'costly' in terms of both flow control and respect for rights.

However, we must also face up to a certain reluctance by some states to accept more binding rules on respect for rights, precisely because they are aware of the limits they would put to their control action. This entailed in the past some difficulty in forging ahead with harmonisation of standards.

Emerging from all this is the importance of a more pervasive dissemination of humanitarian principles. We have, in fact, argued that the states’ asylum policies are influenced by the voters’ sentiments, but also by an international process of compliance (Chayes and Chayes, 1993). Compliance would be easier when the political culture of the élites and cost-benefits for the governments where changed. Thus emerges the twofold policy role – at the level of international relations and of the national objectives – played by humanitarianism.

References


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Appendix

Solving for Nash equilibriums.

The loss functions in the D- and the C case are:

\[ L^D = (A - A_1)^2 + \nu r^2, \quad L^* = (A^* - A_2)^2 + \nu^* r^{*2} \]

and

\[ L^C = \left[ \frac{1}{2}(A + A^*) - A_1 \right]^2 + \nu r^2, \quad L^* = \left[ \frac{1}{2}(A + A^*) - A_2 \right]^2 + \nu^* r^{*2}. \]

A Nash equilibrium is obtained when each state minimizes its loss, given the restrictive policy of the other state. By routine, this consists in the two equations

\[ \frac{\partial L^i}{\partial r} = 0 \quad \text{and} \quad \frac{\partial L^{*i}}{\partial r} = 0, \quad \text{where} \quad i = D, C. \]

Since the loss functions are quadratic, first derivatives are all linear. So, in each case we have two simultaneous linear equations to solve in order to obtain the couple \((r_0, r_0^*)\) of the Nash-equilibrium solutions. This can be made simply by means of a Cramer's rule. Then one can easily compute \(A\) and \(A^*\) by equations (3) and (4). Then, introduce these values into (1) and (2) both in the D and C case so as to compute the equilibrium loss.

Remark 1. Using the spreadsheet, consideration can extend to states differing in capacity for restriction \((\sigma \neq \sigma^*)\), extent of spillover \((\lambda \neq \lambda^*)\) and policy approaches, i.e. with \(A_1 \neq A_2\) and/or \(\nu \neq \nu^*\). In these more general cases the results are found, on testing, to be qualitatively similar; only the interval \((\phi_1, \phi_2)\) is different, and no longer symmetrical. Here we may speak of a ‘relative asymmetry’ between the two states, and our finding – that there is an ample range of initial flow distributions for which C is preferable and that the ongoing changes in these flows can entail this different system – therefore remains valid.

Remark 2. Figure 2 exhibits a non-linear shape. Apparently, when \(\nu\) and \(\nu^*\) are small an increase of \(\nu\) and \(\nu^*\) entails a wider range of initial distributions \(\phi\) such that \(C\) is prevailing. Instead, when \(\nu\) and \(\nu^*\) assume larger values, an increase of them implies a narrower set. In order to give an explanation let’s consider how changes \(\phi_1\). The value of \(\phi_1\) depends on the relative position of the curves \(L^D\) e \(L^C\) in Figure 1. When \(\nu\) and \(\nu^*\) increase both the curves show an upward shift. The reason is
because a greater respect of rights in some way 'ties the hands' of the states, both in the D and in the C cases. This translates in higher losses for both the states, because the control objectives are achieved to a lesser extent, with the added cost of a larger loss for the part that refers to the rights. It is then clear from Figure 1 that $\varphi_1$ shifts leftwards if $L_D$ shifts upwards more than $L_C$. From the data of excel sheet (not shown here), we note that in the case of Dublin, in the face of an asymmetric distribution of the flows, the restrictive reactions and counter-reactions by the states are accentuated if $\nu$ and $\nu^*$ are small, because the goal of control prevails in the loss function. Instead, when $\nu$ and $\nu^*$ are large, the first summand in the loss function (1), which is the target of control, is very small and all the loss is attributable to the second term, which is the target for the rights. As a result $L_D$ moves slightly. In case C, however, the reactions are more uniform in the two cases (numbers confirm this), because the system C by itself mediates the rivalry between states and attenuates their restrictive reactions. So the relative shifts of the two curves are different in the case '$\nu$ and $\nu^*$ small' compared to the case '$\nu$ and $\nu^*$ big' and give an explanation of the non-linear results.