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Strategic Asylum Law Making in Europe: Institutional Locus

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Abstract

Given the background of changing institutional competencies in the European Union, we analyze the choice of asylum law standards of national and European parliaments, the Council of the European Union and codecision between the Council and the European Parliament. In a two country model we find that the European arrangements maximize neither the welfare of the Member Countries nor the welfare of refugees. For the latter, there has been an improvement in the institutional location of asylum law making with the introduction of codecision. The current development towards a Common European Asylum System is in the interest of neither party.

Key words: Asylum policy, Illegal immigration, Regulatory competition, Public choice, EU institutions

JEL classification: D72, D78, F22, K42, H53

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"The participation of the European Parliament in [the process of amending the directive] would have led to a much better result." (European Parliament, 2005a)

"But the restrictive trend has also been encouraged by the system of unanimity voting at Council level, which ECRE has for long considered to be highly ineffective as a decision-making mechanism" (ECRE, 2004)

1 Introduction

In the parliamentary debate on the procedures in Member States for granting and withdrawing refugee status, Wolfgang Kreissl-Dörfer (PSE), rapporteur for the European Parliament, accuses the Council of the European Union of "uncooperative cooperation"[1]. This criticism is based on the fact that the Council reached a political agreement on the procedures directive before receiving the opinion of the Parliament, leading to an undermining of standards and the non-respect of the spirit of previous treaties[2]. It is believed that the participation of the European Parliament in the process of amending the directive would have led to a much better result.[3]

In this paper, we examine the question of whether the European Parliament is right to claim that it would have made a better choice of asylum standards than the Council, and what are the necessary improvements of the decision making mechanism in the European Union. We find that from the point of view of refugee protection, decision or codecision by the European Parliament would have improved the directives. However, the countries involved had an interest in letting the Council rather than the Parliament decide on minimum standards. The current process of codecision seems a good solution to take into account the interests of both the refugees and the member countries in the process of designing the Common European Asylum System.

For Guiraudon (2000) and Lavenex (2001), the European Commission, as the initiator

of asylum law at the European level, is for historical reasons highly influenced by "security clubs", setting the agenda of asylum and migration as a security issue. In this paper, we study the institutional bodies that make amendments of the Commission's proposals and take the decisions, rather than the Commission itself: the Council and the European Parliament. Instead of looking at the historical reasons for letting the Council make the final decisions on the minimum standards in the area of asylum, we offer a rational choice explanation of the member countries' strategies.

In Monheim and Obidzinski (2007), the optimal discretion of law makers is analyzed in the area of asylum, comparing the national and the European levels of decision-making. The model is based on the costs and benefits of asylum law and asylum applications. The trade-off it identifies is that the harmonization of asylum law is only better than national law making on the condition that the extra costs of harmonization do not outweigh the gains from a reduction in externalities for the jurisdictions, and that it leads to higher standards of asylum law for refugees. Minimum standards are found to always be more favorable than fixed rules.

The question asked in this paper differs from Monheim and Obidzinski (2007) in two crucial points. First of all, other than the costs and benefits of asylum law and asylum applications, we include the costs of illegal immigration in the law maker's objective function. Based on an analysis of texts of the aims of law makers we find that the negative impact of illegal immigration is in practice (if not in principle) an aspect taken into account when designing asylum laws. However, illegal immigration increases as asylum standards become stricter. Legislators must thus find a balance between the two issues.

Furthermore, we distinguish between law makers not only by their national or supranational locus, but also by their composition. While national asylum law is made by parliaments, the current EU legislation in the area of asylum was adopted by the Council of the European Union. Recently, the European Parliament has gained the right of codecision with

the Council. We study the way the location of the decision-making competencies influences the outcome, based on the objectives of the decision-making bodies identified in speeches and press declarations by the concerned actors.

The development of asylum law making in Europe over the last twenty years is traced in section 2. It is followed by the model and conclusions.

2 The harmonization of European asylum laws

Harmonization of EU asylum legislation is a gradual process due to be completed by 2010. It implies the transfer of competencies not only from the national to the supranational level, but also to a different composition of decision-making bodies.

2.1 Short history of the harmonization of asylum law in Europe

Since the opening of borders within the EU[4], asylum policies are being gradually transferred to the EU level. This development started with an intergovernmental approach in the 1980s and a move toward the supranational level in the 1990s.

Asylum was defined as a question of common interest in the 1992 Maastricht Treaty. Subsequently, a number of statements on asylum policies and practices were formulated. Resolutions, conclusions and recommendations with no legal weight played an important role in the gradual harmonization of asylum policies. For example, terms like "safe third country" and "safe country of origin" received an EU interpretation in 1992, and a common position on the definition of the term "refugee" was found in 1996.

With the Amsterdam Treaty (1997) the Schengen Agreement was integrated into the European Union. Asylum was moved from the third pillar, where unanimity of member states is required in decisions and the decision-making process is intergovernmental, to the first pillar, where EU institutions play a greater role and the Council of Ministers can make decisions by qualified majority voting. During the 5-year transition period, ending in April 2004, the

Commission adopted measures defining the member state responsible for examining an asylum claim and minimum standards in the following fields: the reception of asylum seekers, the qualification of third country nationals as refugees and beneficiaries of subsidiary protection, the procedures for granting and withdrawing refugee status, and temporary protection in the aim of harmonizing asylum policies. These minimum standards are widely criticized as being too low to be meaningful, and as leaving too much discretion to member states.[5] The next step envisaged in order to complete the Common European Asylum System (CEAS) is the gradual introduction of a single asylum procedure in which all claims for international protection are examined by one authority, taking a single decision. The details of the CEAS are to be worked out by 2010, and decided on by codecision between the European Parliament and the Council.

2.2 Institutional locus of asylum law making

The move of competencies on asylum law from the national to the European level implies that different institutions, composed of different members, make the decisions. Until 1999, asylum law was part of the third, intergovernmental pillar. Agreements were made between national governments, whose competency asylum law was.

The harmonization process started with a 5-year transition period, in which the Commission, presented by its directorate-general Justice, Freedom and Security, gained the initiative of asylum law. Decisions were taken unanimously by the Council of the EU, that is composed of the national ministers concerned; in the case of asylum, nearly always the minister for the interior and the minister of justice.[6] The European Parliament was consulted, but its position was not binding.[7]

As defined in the Nice Treaty, since the adoption of the last minimum standard (December 2005), decisions require a majority vote in the Council and codecision by the European Parliament. The legislative power is shared by the Council and the European Parliament,

who must come to a common agreement.

Both the national and the European parliaments are composed of elected delegates representing the various interests of the citizens. The Council is constituted of the ministers concerned of the national governments.

The objectives pursued by the producers of law are subject to a considerable amount of debate. Governments have been suspected of a spectrum of conceivable objectives, ranging from the respect of human rights to tolerating the exploitation of illegal immigrants, via the *de facto* abolishment of the asylum system.[8] In order to stick to reality as closely as possible, instead of reasoning *a priori*, we have chosen to deduct the objective functions from the objectives stated by the relevant actors in the past.

An analysis of the debates in two national parliaments[9] shows that the objectives pursued by national asylum law makers are the protection of refugees, the defense of the constitutional right to asylum, the honour and values of the country, but also fighting asylum fraud, high hosting costs, externalities suffered from strict standards in other countries, and the human costs of illegal immigration.

The European Parliament (2005) particularly emphasizes the need to respect international treaties, such as the Geneva Convention on Refugees and the UN Convention on the protection of children. It insists on the respect of human rights and on the role of the EU as a community of values. In addition, it is concerned with the harmonization of European asylum law and with the simplification of procedures.

COM (2000) states the objectives of the Commission in the original proposal to the qualification directive (which subsequently was subject to many modifications). It lists four points related to the efficiency of the asylum procedures, two on the pursuit of the aim of harmonization of European asylum procedures, and two on the existence of safeguards for refugees.

For the objectives of the Council (Council debates are not published), dpa (2006), a docu-

ment on the common position of the French and German ministers of the interior, shows that the emphasis is put on repression. The stated main objective is the management of migration flows, implying a reduction in the number of asylum applications. The constitutional principle of asylum is recalled. In addition to the costs listed in the parliamentary debates, social costs and risks caused by immigration are mentioned, as well as costs of illegal immigration. We assume that ministers of justice also aim to uphold constitutional principles and to fight criminality.[10]

In summary, all institutions agree on the need to defend the constitutional right to asylum. Only the parliaments and the Commission see a benefit in going beyond this right in favor of refugee protection. While all discuss the costs of hosting asylum seekers and of illegal immigration, the Council has the most security oriented approach. The European institutions include the harmonization of EU asylum law as an objective.

In what follows, we will formalize these objectives and compare the theoretical outcome in terms of standards of asylum law as the output of negotiations at the different levels of decision making.

3 Model

We model the optimal choice of standards for asylum law makers of two countries, at the national and supranational, parliament and Council locuses as a reaction to refugees' choice of jurisdiction. We define standards for asylum law as consisting of a collection of criteria in order to be granted protection.

3.1 Definitions

3.1.1 Asylum law standards and refugees' choice of jurisdiction

A refugee decides whether or not to apply for asylum, depending on the chances of success of the application. The eligibility of the refugee, or "type" of refugee is determined by the gravity of his individual need for protection, determined by his personal history of political, ethnic or religious persecution.[11] The gravity of the individual's need for protection is observed by the state in the course of hearings that are part of the asylum procedure. Asylum or a different protection status[12] is granted when the gravity of the case is judged sufficiently high.

The level of gravity required to be granted a protection status depends on the standard (i.e. the asylum law) x_i fixed by the law maker. Refugees are defined by their type x, which corresponds to the standard needed to be granted a protection status, and are uniformly distributed along $[0, 1]$.[13] The density function $u(x)$ is equal to 1 over $[0, 1]$ and equal to 0 over $]-\infty, 0[\cup]1, \infty[$.

The lower the type x, the lower the standard necessary for the protection need to be recognized, and the higher the gravity of persecution. This can seem counter-intuitive at the first glance: a high x corresponds to a "generous" standard, while a low x represents restrictive asylum laws. This choice of x reflects the idea of a "race to the bottom". An individual of a type close to zero has a high chance of being accepted, because his high persecution level will be recognized by most standards of asylum law, while an individual with a type close to 1 has a very low chance of being accepted. The higher the standard, the better it is for the refugees because more refugees can claim protection. Those who do not fulfill the criteria of the highest standard immigrate illegally.

α is the exogenous preference of refugees for jurisdiction 1. It depends on personal preferences that are outside the scope of the policy maker, like the presence of family members in the country, or knowledge of the language.[14] It can be interpreted as the geographical

situation of a jurisdiction within the EU borders: the Dublin II regulation stipulates that refugees must apply for asylum at the point of entry to the EU, with the consequence that the peripheral EU Member Countries are responsible for a majority of asylum applications. We assume that refugees choose their destination country according to α, except in the case where asylum law differs. Given the choice between a country preferred and a country where they can be granted refugee status, they opt for the latter.[15] If jurisdiction 1 has a higher standard than jurisdiction 2[16], the number of asylum seekers in jurisdiction (2) is defined by its standard and the preference of refugees for (2): $(1-\alpha)x_2$. The number of asylum applications in jurisdiction (1) is defined by its share of those who have the choice of countries (αx_2), plus those who can only apply for asylum in (1), $(x_1 - x_2)$, or $x_1 - (1-\alpha)x_2$. This is the externality effect. We note that $x_1 - (1-\alpha)x_2 > \alpha x_1$, so the externality effect increases the number of applicants in (1) compared to a situation with no externality. $\alpha(1-x_1)$ is the share of refugees who stay illegally in (1), and $(1-\alpha)(1-x_1)$ is the share of refugees who stay illegally in (2).

3.1.2 Benefits

The parliamentary debates show the valuation of the protection of a large number of refugees. Adopting a generous and humanitarian standard is an objective particularly emphasized. We deduce from this that for parliaments both national and European, there are reputational benefits derived from having higher standards. The ministers of the interior do not evoke any benefit from adopting standards higher than those required by the constitution. They do not aim at the protection of the highest number of refugees, but rather at a limit to the number of refugees.[17]

We note the benefits $b(x)$ for parliaments derived from high standards with the index P. The Council (index C) derives no benefits from standards above the constitutional minimum. We assume that the benefit functions are not jurisdiction specific.

$$b_C(x) = 0$$

$$\lim_{x \to 0} b_P(x) = -\infty$$

$$\lim_{x \to 1} b_P(x) = B$$

Benefits vary from $-\infty$ at an extremely strict standard that does not fulfill the constitutional guarantees to an upper limit B. An increase in a low standard leads to higher marginal benefits than an increase in already high standards.[18]

$$b_P(x)' > 0$$

$$b''_{P(x)} \leqslant 0$$

3.1.3 Hosting costs

For both types of institutions, hosting asylum seekers implies a cost that depends on the number of asylum seekers. Asylum applications are examined individually. The more asylum applications there are, the higher the costs of examination, and the higher the opportunity costs for the country: courts that are occupied with asylum claims are not available for other proceedings. Along with opportunity costs, the costs of asylum applications noted c, are exponential.

The number of asylum seekers depends not only on the standard adopted by the jurisdiction itself, but also on that adopted by the other jurisdiction (externality effect).

$$\frac{\partial c_{i,C,P}}{\partial x_i}(x_i, x_j) > 0$$
$$\frac{\partial c_{i,C,P}}{\partial x_j}(x_i, x_j) < 0$$
$$\frac{\partial \partial c_{i,C,P}}{\partial \partial x_i}(x_i, x_j) \geqslant 0$$
$$\frac{\partial \partial \partial c_{i,C,P}}{\partial \partial \partial x_i}(x_i, x_j) = 0$$

We also suppose that :

$$c_{C,P}(0) = 0$$
$$\lim_{x_i \to 1} \lim_{x_j \to 0} c_{i,C,P}(x_i) = +\infty$$

Hosting costs vary from zero for an infinitely low standard to infinite for the highest possible standard.

3.1.4 Costs of illegal immigration

Both parliaments and ministers of the interior are concerned with illegal immigration; the ministers as a source of insecurity and criminality, and the members of parliament in terms of human costs for the illegal immigrants and for the persons in direct contact with them, such as immigrant communities. The economic advantages derived from illegal immigration that are found in the literature[19] are not defended in the studied documents; they are however used in an accusatory manner as the explanation of the adversary party's policy.[20] The costs of the application of repressive policies are not mentioned in any form other than that of the costs of illegal immigration.

The costs of illegal immigration $i(x_h)$ depend on the level of the highest standard x_h. A high standard leaves few illegal immigrants and thus generates low costs, while a low standards leaves many more refugees with no option other than illegal immigration, leading to increasingly high costs.

$$i'_{C,P}(x_h) < 0$$

$$i''_{C,P}(x_h) \geqslant 0$$

$$i'''_{C,P}(x_h) = 0$$

We also suppose that :

$$i_{C,P}(1) = 0$$

$$\lim_{x_h \to 0} i_{C,P}(x_h) = +\infty$$

3.1.5 Externality effects

When in a geographical zone composed of two jurisdictions 1 and 2 the standards adopted are different, the jurisdiction with the higher (i.e. more "generous") standard (jurisdiction 1) receives asylum applications by refugees who do not fulfill the criteria of the other jurisdiction (2). There is thus an externality effect, induced by the lowering of the standard in (2), that leads to a relative rise in the number of asylum applications in (1) (see above). In other words, the standard adopted by one jurisdiction serves as shift parameter for the cost function of the other. This effect increases the hosting costs of (1) and is thus a negative externality.
The existing mechanism of compensation of the externality, the European Refugee Fund, involves sums that are negligible compared to the costs involved (Noll, 2004). Another possible solution to the externality problem is harmonization, which we will study in what follows.

We add a second externality effect of jurisdiction (1) onto (2). The number of illegal immigrants depends on the highest standard. It is determined by the number of refugees who do not fulfill the criteria in any jurisdiction for accessing a protection status. The total share of illegal immigrants is thus defined by $(1 - x_1)$, of which a share α chooses to go to

jurisdiction (1) and $(1-\alpha)$ chooses (2) with $\alpha\epsilon]0, \frac{1}{2}]$ the preference for jurisdiction (1). Put differently, jurisdiction 2 is the preferred destination for asylum seekers, for example because of its peripheral location.

3.1.6 Basic objective functions

The objective functions of the different legislators are composed of the sum of the benefits and costs of a policy given the policy level of the other jurisdiction. They can be interpreted as best response functions, because they take the level chosen by the other jurisdiction into account.

The objective function of jurisdiction 1 is:

$$\max_{x_1} \left(b(x_1) - c_1(x_1, x_2, \alpha) - \alpha i(x_1)\right) \tag{1}$$

The objective function of jurisdiction 2 is:

$$\max_{x_2} \left(b(x_1) - c(x_2, x_1, (1-\alpha)) - (1-\alpha) i(x_1)\right) \tag{2}$$

The objective function of the minister of the interior of jurisdiction 1 is:

$$\min_{x_1} \left(c(x_1, x_2, \alpha) + \alpha i(x_1)\right) \tag{3}$$

The objective function of the minister of the interior of jurisdiction 2 is:[21]

$$\min_{x_2} \left(c(x_2, (1-\alpha)) + (1-\alpha) i(x_1)\right) \tag{4}$$

3.2 Competitive national optimal standards

3.2.1 Without externalities

$x^*_{1,2}$, the optimal value of asylum law standards chosen by the parliament in the absence of all externalities is implicitly defined by

$$b'(x^*_1) = c'(\alpha x^*_1) + \alpha i'(x^*_1) \tag{5}$$

$$b'(x^*_2) = c'[(1-\alpha)x^*_2] + (1-\alpha) i'(x^*_2) \tag{6}$$

Lemma 1 *Jurisdiction 1 adopts a higher standard than jurisdiction 2:* $x_1^* > x_2^*$.

For proof see appendix.

3.2.2 With externalities

The objective function of jurisdiction 1 is:

$$\max_{x_1} \left(b(x_1) - c(x_1 - (1-\alpha)\, x_2) - \alpha i(x_1)\right) \tag{7}$$

The objective function of jurisdiction 2 is :

$$\max_{x_2} \left(b(x_2) - (1-\alpha)\, c[(1-\alpha)\, x_2] - (1-\alpha) i(x_1)\right) \tag{8}$$

with the first order conditions

$$b'(\tilde{x}_1) = c'(\tilde{x}_1 - (1-\alpha)\, \tilde{x}_2) + \alpha i'(\tilde{x}_1) \tag{9}$$

$$b'(\tilde{x}_2) = c'[(1-\alpha)\, \tilde{x}_2]) \tag{10}$$

Lemma 2 *Jurisdiction 1 adopts a higher standard than jurisdiction 2:* $\tilde{x}_1 > \tilde{x}_2$.

For proof see appendix.

3.2.3 The effect of the externalities on the levels of standards

Lemma 3 *The standard chosen by jurisdiction 1 taking externalities into account is lower than the standard chosen without externalities* $\tilde{x}_1 < x_1^*$.

Lemma 4 *The standard in jurisdiction 2 is increased in the presence of externalities:* $\tilde{x}_2 > x_2^*$.

For proofs see appendix.

3.2.4 The effect of illegal immigration costs on the levels of standards

If the costs of illegal immigration $i(x)$ are not taken into account, the jurisdictions adopt standards $\breve{x}_1$ and $\breve{x}_2$ defined by the following first order conditions.

$$b'(\breve{x}_1) = c'(\breve{x}_1 - (1-\alpha)\,\breve{x}_2) \tag{11}$$

$$b'(\breve{x}_2) = c'[(1-\alpha)\,\breve{x}_2] \tag{12}$$

Lemma 5 *When countries take the costs of illegal immigration into account, their standards are higher than when these costs are ignored:* $\tilde{x}_1 > \breve{x}_1$ *and* $\tilde{x}_2 > \breve{x}_2$.

For proof see appendix.

3.3 Harmonized supranational social optima

Assume that the social optimum is found by optimizing the sum of the participating parties' objective functions. In other words, the legislators maximize the utility of the group.

3.3.1 Pareto optimum

An omniscient and benevolent central law maker or social planner would choose a Pareto efficient solution with two standards, one for each jurisdiction, by maximizing the following social welfare function:

$$\max_{x_1,x_2}[b(x_1) - c[x_1 - (1-\alpha)x_2] + b(x_2) - c[(1-\alpha)x_2] - i(x_1)]$$

The implicit conditions defining x_1^{**} and x_2^{**} are:

$$b'(x_1) - c'[x_1 - (1-\alpha)x_2] - i'(x_1) = 0 \tag{13}$$

$$b'(x_2) + c'[x_1 - (1-\alpha)x_2] - c'[(1-\alpha)x_2] = 0 \tag{14}$$

Jurisdictions 1 and 2 now take the externality effects into account. An increase in x_2 allows jurisdiction 1 to raise its standard.

Lemma 6 *In the Pareto optimal solution,* $x_2^{**} > \tilde{x}_2$ *and* $x_1^{**} > \tilde{x}_1$.

It follows that the standards $\tilde{x}_1^*$ and $\tilde{x}_2^*$ chosen in the absence of harmonization are suboptimal. We therefore have a case for harmonization.

3.3.2 Parliament social optimum

Assume that the parliaments of two countries choose a unique standard x^{**} that maximizes their common interests.

$$\begin{aligned} &\max_{x^{**}} \left[2b(x^{**}) - c(\alpha x^{**}) - c((1-\alpha)\, x^{**}) - i(x^{**})\right] \\ \Longrightarrow\ &2b'(x^{**}) - c'(\alpha x^{**}) - c'((1-\alpha)\, x^{**}) - i'(x^{**}) = 0 \end{aligned}$$

The same standard is chosen by a parliament like the European Parliament. Here, it is constituted of delegates representing the interests of two countries in the same way as in the national parliaments, with equal weighting for each jurisdiction.

$$\begin{aligned} &\max_{x^{**}} \left[b(x^{**}) - \frac{1}{2}c(\alpha x^{**}) - \frac{1}{2}c((1-\alpha)\, x^{**}) - \frac{1}{2}i(x^{**})\right] \\ \Longrightarrow\ &b'(x^{**}) - \frac{1}{2}c'(\alpha x^{**}) - \frac{1}{2}c'((1-\alpha)\, x^{**}) - \frac{1}{2}i'(x^{**}) = 0 \end{aligned}$$

3.3.3 Interior Ministers' social optimum

Here, it is two ministers of the Interior who choose a single standard $\dot{x}^*$ so as to maximize their common interests (i.e. to minimize the total cost), as in the Council of the European Union.[22]

$$\begin{aligned} &\min_{\dot{x}^*} \left[c(\alpha \dot{x}^*) + c((1-\alpha)\, \dot{x}^*) + i(\dot{x}^*)\right] \\ \Longrightarrow\ &c'(\alpha \dot{x}^*) + c'((1-\alpha)\, \dot{x}^*) + i'(\dot{x}^*) = 0 \end{aligned}$$

Lemma 7 *The common standard chosen by the parliaments is always superior to that chosen by the ministers of the Interior (i.e. the Council),* $x^{**} > \dot{x}^{*}$.

For proof see appendix.

3.3.4 Codecision

In the current system, the Council of the European Union and the European Parliament have to agree on a decision, taking turns in amending the text until both bodies vote in favor of it. The outcome reflects both their interests to the same degree. We thus construct a common objective function with equal weighting of both individual objective functions. The process of codecision defines a standard $\mathring{x}^{**}$ that maximizes:

$$\max_{\mathring{x}^{**}} [2b(\mathring{x}^{**}) - c(\alpha\mathring{x}^{**}) - c((1-\alpha)\,\mathring{x}^{**}) - i(\mathring{x}^{**}) - [c(\alpha\mathring{x}^{**}) + c((1-\alpha)\,\mathring{x}^{**}) + i(\mathring{x}^{**})]]$$

Which equals

$$\max_{\mathring{x}^{**}} [b(\mathring{x}^{**}) - c(\alpha\mathring{x}^{**}) - c((1-\alpha)\,\mathring{x}^{**}) - i(\mathring{x}^{**})]$$

The first order condition is:

$$b'(\mathring{x}^{**}) = c'(\alpha\mathring{x}^{**}) + c'((1-\alpha)\,\mathring{x}^{**}) + i'(\mathring{x}^{**})$$

Lemma 8 *The process of codecision leads to a standard that is more generous than that chosen only by the Council, and less generous than that of the Parliament on its own:* $x^{**} > \mathring{x}^{**} > \dot{x}^{*}$

For proof see appendix.

In contrast to the system where the Council was the only decision taker, the process of codecision takes into account the benefits of a given standard of asylum law. However, these benefits are only given half the weighting they have in the parliament.

Lemma 9 *It is not possible without further specification to predict whether the standards adopted by the European Parliament, by the Council and by codecision are higher or lower than the national standards adopted in jurisdiction 1.*

Lemma 10 *The harmonized standards chosen by parliament are higher than the standard adopted by jurisdiction 2. It is not possible without further specification to predict whether the standards adopted by the Council and by codecision are higher or lower than the national standards adopted in jurisdiction 2.*

Lemma 11 *All of the institutions adopt standards that are inferior to the Pareto optimum of jurisdiction 1. Whether they are also lower than the Pareto optimal standard for jurisdiction 2 depends on the costs of illegal immigration. If the costs of illegal immigration are high, the standards chosen by the institutions can be set higher than the Pareto optimum for jurisdiction 2.*

For proofs see appendix.

The comparison between European and national standards would require further specification of α and of the first derivatives of the cost and benefit functions. Thus, when the difference between marginal hosting costs is inferior to the marginal costs of illegal immigration, the European Parliament adopts a higher standard than either of the jurisdictions. When the total marginal costs are superior to the marginal benefits, the Council adopts a more restrictive standards than either of the jurisdictions. Finally, when the externality hosting costs are relatively high, the standard adopted in codecision is higher than the standards adopted by the jurisdictions.

3.4 Comparison of social welfare

An evaluation of the different locations of decision-making depends on the gains and losses for the countries concerned, expressed by social welfare. As a separate criterion, we evaluate

the protection offered to refugees.

3.4.1 Welfare of the participating states

- Council decision vs. European Parliament decision

Comparing the two decision making frameworks, we find that the social welfare generated by the standard adopted by the European Parliament is higher than the social welfare resulting from a Council decision ($SW(\dot{x}^*) < SW(x^{**})$) if[23]

$$|SW'(\dot{x}^*)| > |SW'(x^{**})|$$

with

$$SW(x) = 2b(x) - c(\alpha x) - c((1-\alpha)\, x) - i(x)$$

The social welfare function is based on the parliamentary objective function, because it is the most representative of the objectives of the population. As long as the costs of illegal immigration are not too high, the above condition is fulfilled.

Jurisdiction 2, having a higher hosting cost function, prefers a lower level to jurisdiction 1. Due to the ambiguity of the comparison of European and national standards, it is not possible *a priori* to decide on how the jurisdictions win or lose in the case of the strict applications of the standards. If the standards are minimum, rather than absolute, it is better for the jurisdictions to adopt $\dot{x}^*$, the lower, Council, standard leaving the possibility to adjust to a higher standard if this is in the interest of the jurisdiction.

- Council decision vs. codecision

Similarly, $SW(\dot{x}^*) < SW(\mathring{x}^{**})$ for $|SW'(\dot{x}^*)| > |SW'(\mathring{x}^{**})|$.

- European Parliament decision vs. codecision

Similarly, $SW(x^{**}) < SW(\mathring{x}^{**})$ for $|SW'(x^{**})| > |SW'(\mathring{x}^{**})|$.

3.4.2 Protection offered to refugees

The higher the standard, the more protection is offered, and the more refugees can benefit from this protection. The regime offering the highest refugee protection at the European level would be pure parliamentary decision-making mechanism, because $x^{**} > \mathring{x}^{**} > \dot{x}^{*}$. It may however be better for refugee protection not to decide on asylum law at the European but at the national level, if $\tilde{x}_1 > x^{**}$. In this case, while some refugees might not have the choice to seek protection in jurisdiction 2, $\tilde{x}_1 - x^{**}$ would have the possibility to seek refugee that they would not have in the European framework.

However, if the rules thus defined at the European level are minimum standards, law making at the European level is always the better solution. It reduces the externalities while leaving the countries the option to adopt higher standards.

4 Conclusion

Further research is necessary to take into account the dynamic aspects of asylum law making. Our model does not permit to answer questions such as: what impact does the fact that minimum standards are very low have on the subsequent process of asylum law making? Also, the structure of European law making tends to alter the national processes. For example, France transferred the competency of asylum law initiatives from the minister of foreign affairs to the minister of the interior in order to facilitate cooperation at the European level. Another possible extension of the model would be the endogenization of α. The attraction of a jurisdiction is only partly outside the scope of influence of policy makers, as measures to reduce asylum applicants' rights in terms of living standards amply prove. In the meantime, our paper does provide some insight in the results of the institutional locus of asylum law making.

We have constructed the objective functions of the different actors by analyzing texts

about their professed objectives, such as the minutes of parliamentary discussions, Council decisions, and press articles. On this basis, we included the costs of illegal immigration, and not only of asylum strictly speaking, into the analysis of asylum law making. Taking into account the costs of illegal immigration increases the level of standards adopted. It also leads to a less clear-cut comparison between asylum law making at the national or international levels: without immigration costs, the jurisdiction with the higher costs, i.e. the peripheral Member Jurisdiction, always suffers a loss when standards are shifted to the competency of the supranational authority. Here, it is not clear, for both jurisdictions, whether their welfare is enhanced or impeded by centralized decision making, and whether their standards are increased or lowered. The standards adopted by the different European institutions fall short of the Pareto optimal standards. This result is interesting as an information in its own right: it shows that, contrary to the subsidiarity principle, the objective of harmonization of asylum law that is pursued by the European institutions is not based on a clear advantage of EU asylum law over national law making.

We find that the location of law-making has an impact on its outcome. Thus, the European Parliament would adopt a higher standard than the Council, and the process of codecision also generates a higher standard than the Council, although it is lower than that strived at by the European Parliament. This difference in outcomes is due to the fact that parliaments reflect a wider range of concerns than the Council, that is composed of the national ministers of the interior. The latter focus more on security concerns and on costs than on the benefits generated by high asylum standards.

The interpretation of the standards as minimum standards as opposed to rigid standards is in the interest of all actors. From the point of view of the refugees emerges the clear result that it would be best if the European Parliament could decide on minimum standards, thus offering most protection. In the absence of this possibility, codecision making by the European Parliament and the Council is a step in the right direction, although there is

no guarantee that rigid rules decided at the European level lead to a better outcome than national law-making.

The picture is quite different from the point of view of the welfare of the two jurisdictions. Even taking into account the benefits derived from generous asylum standards, if European standards are minimum standards, the lowest standard i.e. the standards decided on by the Council are the best option. This is because countries are free to adopt higher standards if it is in their interest - the more freedom is left to the national jurisdictions, the closer their standards can approach national optimum. A condition for European standards is however that the minimum standards present a meaningful lower threshold to national standards. In reality, this condition is not necessarily met.[24] If standards are rigid, then it is impossible to say *a priori* which of the solutions is better, because this depends on the shapes of the different functions.

Although not in the best interests of the refugees, our model shows that it was in the member countries' interests that the minimum standards defined in the transition stage were adopted by the Council rather than by the European Parliament. This locus ensured that the minimum standards were set as low as possible. If the exact shapes of the benefits and different cost functions are not known (which seems a reasonable assumption in such a complex area as asylum), then the current codecision process can be interpreted as a compromise between the two institutions, leading to higher standards than if the Council were to decide alone, and to lower standards than if it were the European Parliament. The system of codecision does not offer refugees the highest protection, but it does provide them with more guarantees than the Council decisions.

The transition period being over, the Common European Asylum System (CEAS) is in the process of being realized. This implies that the adopted directives no longer define a minimum standard, but a rule to be applied in all member states. The exact form of the CEAS is not yet known[25], but it does imply a fixed standard. Our model shows that in these

conditions, it would be to the advantage of both the member countries and the refugees to convey the legislative power to the European Parliament only.

Notes

[1]European Parliament (2005b).

[2]And especially the Tampere Agreement and the Geneva Convention.

[3]European Parliament (2005a).

[4]This process was decided in the European Single Act in 1986 and realized in 1992.

[5]Ardittis et al. (2005), p. 8, ECRE (2004).

[6]See lists of ministers in Council decisions.

[7]Its position on the procedures directive for example was ignored in the vote of the Council (ECRE (2006)).

[8]See Assemblée Nationale (2003).

[9]Deutscher Bundestag (2001), Assemblée Nationale (2003), Assemblée Nationale (2006).

[10]The Council objectives show many parallels to the Commission objectives as developed in Guiraudon (2000).

[11]This list is not exhaustive. We assume that the gravity of persecution is exogenous: it is not the case that future refugees try to suffer worse persecution in order to fulfill the criteria for obtaining a protection status.

[12]For our purposes it is not necessary to differentiate between the statuses.

[13]This specification of the density function is not essential to the results.

[14]For discussions on the motivations of refugees' country choice, see Böcker and Havinga (1997), Efionayi-Mäder et al. (2001), Robinson and Segrott (2002).

[15]Our model is relevant if at least a non-zero share of refugees acts according to this principle of choice. As long as some refugees choose their jurisdiction according to refugee law and not to their personal preferences, there exists an externality effect.

[16]We choose jurisdictions 1 and 2 so that this is the case.

[17]Their emphasis is on better living conditions for those refugees who do enter, rather than on protecting a greater number of people.

[18]Our results are valid for all $b_1(x) \geq b_2(x)$. There is no reason a priori why the reputational benefits derived from asylum law should vary between the countries. Subjective benefits can be taken into account in the cost functions without changing the result.

[19]See for example OECD (1999).

[20]Assemblé Nationale (2003: 4620-21). Patrick Brazouezec suggests that the government "creates" illegal immigrants by imposing strict standards in order to exploit them economically.

[21]There is no externality effect on the costs function because $x_2 < x_1$. For proof see appendix.

[22]We suppose that they are not involved in any particular bargaining process.

[23]The lower the absolute slope of the social welfare function, the more the value of x approaches the optimum

[24]See for example ECRE (2004).

[25]The objective of the CEAS is to implement a common asylum procedure and a common protection status (European Council of Tampere 1999 §15). The degree of harmonization of the procedure is not yet defined; it can be either unique of unified. See Hailbronner (2002: 95).

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5 APPENDIX

Proof. Lemma 1: $x_1^* > x_2^*$

Suppose that $x_1^* = x_2^*$. Thus,

$$b'(x_1^*) = b'(x_2^*) \text{ and} \alpha c'(\alpha x_1^*) + \alpha i'(x_1^*) = (1-\alpha)c'[(1-\alpha)x_1^*] + (1-\alpha)i'(x_1^*)$$

however,

$$\alpha c'(\alpha x_1^*) + \alpha i'(x_1^*) < (1-\alpha)c'[(1-\alpha)x_1^*] + (1-\alpha)i'(x_1^*)$$

thus

$$b'(x_1^*) < b'(x_2^*)$$

$$x_1^* > x_2^*$$

■

Proof. Lemma 2: $\tilde{x}_1 > \tilde{x}_2$

Suppose that $\tilde{x}_1 = \tilde{x}_2$. Thus,

$$b'(\tilde{x}_1) = b'(\tilde{x}_2) \text{ and}$$

$$c'(\alpha\tilde{x}_1) + \alpha i'(\tilde{x}_1) = c'[(1-\alpha)\tilde{x}_1]$$

however,

$$c'(\alpha\tilde{x}_1) + \alpha i'(\tilde{x}_1) < c'[(1-\alpha)\tilde{x}_1]$$

Thus,

$$b'(\tilde{x}_1) < b'(\tilde{x}_2)$$

and

$$\tilde{x}_1 > \tilde{x}_2$$

We therefore know that the externality effect of extra asylum is faced by jurisdiction 1. ■

Proof. Lemma 3: $x_1^* > \tilde{x}_1$

Suppose that $x_1^* = \tilde{x}_1$. Then,

$$b'(x_1^*) = b'(\tilde{x}_1)$$

$$c'(\alpha x_1^*) + \alpha i'(x_1^*) = c'(x_1^* - (1-\alpha)\,\tilde{x}_2) + \alpha i'(x_1^*)$$

or

$$\alpha x_1^* = x_1^* - (1-\alpha)\,\tilde{x}_2$$

However,

$$\alpha x_1^* < x_1^* - (1-\alpha)\,\tilde{x}_2$$

Thus,

$$b'(x_1^*) < b'(\tilde{x}_1)$$

and

$$x_1^* > \tilde{x}_1$$

■

Proof. Lemma 4: $x_2^* < \tilde{x}_2$

Suppose that $x_2^* = \tilde{x}_2$. Then:

$$b'(x_2^*) = b'(\tilde{x}_2)$$

and

$$c'[(1-\alpha)x_2^*] + (1-\alpha)i'(x_1^*) = c'[(1-\alpha)\,x_2^*] + (1-\alpha)\,i'(\tilde{x}_1)$$

or

$$i'(x_1^*) = i'(\tilde{x}_1)$$

However,

$$i'(x_1^*) < i'(\tilde{x}_1)$$

Thus,

$$b'(x_2^*) > b'(\tilde{x}_2)$$

and

$$x_2^* < \tilde{x}_2$$

■

Proof. Lemma 3 (i): $\tilde{x}_2 > \breve{x}_2$

Suppose that $\tilde{x}_2 = \breve{x}_2$, then $b'(\tilde{x}_2) > b'(\breve{x}_2)$ and

$$c'[(1-\alpha)\,\tilde{x}_2] + (1-\alpha)\,i'(\tilde{x}_1) = c'[(1-\alpha)\,\tilde{x}_2]$$

however,

$$(1-\alpha)\,i'(\tilde{x}_1) < 0$$

so

$$b'(\tilde{x}_2) < b'(\breve{x}_2)$$

and

$$\tilde{x}_2 > \breve{x}_2$$

■

Proof. Lemma 5 (ii): $\tilde{x}_1 = \breve{x}_1$

Suppose that $\tilde{x}_1 = \breve{x}_1$, then $b'(\tilde{x}_1) > b'(\breve{x}_1)$ and

$$c'(\tilde{x}_1 - (1-\alpha)\,\tilde{x}_2) + \alpha i'(\tilde{x}_1) = c'(\tilde{x}_1 - (1-\alpha)\,\breve{x}_2)$$

however,

$$c'(\tilde{x}_1 - (1-\alpha)\,\tilde{x}_2) + \alpha i'(\tilde{x}_1) < c'(\tilde{x}_1 - (1-\alpha)\,\breve{x}_2)$$

$$b'(\tilde{x}_1) < b'(\breve{x}_1)$$

and

$$\tilde{x}_1 > \breve{x}_1$$

■

Proof. Lemma 6 (i): $x_2^{**} > \tilde{x_2}$

Suppose that $x_2^{**} = \tilde{x_2}$

Then $b(x_2^{**}) = b(\tilde{x_2})$

And

$$-c'[x_1^{**} - (1-\alpha)x_2^{**}] + c'[(1-\alpha)x_2^{**}] = c'[(1-\alpha)x_2^{**}]$$

However

$$-c'[x_1^{**} - (1-\alpha)x_2^{**}] < 0$$

And thus

$$b(x_2^{**}) < b(\tilde{x_2})$$

And

$$x_2^{**} > \tilde{x_2}$$

■

Proof. Lemma 6 (ii): $x_1^{**} > \tilde{x_1}$

Suppose that $x_1^{**} = \tilde{x_1}$

Then $b(x_1^{**}) = b(\tilde{x_1})$

And

$$c'[x_1^{**} - (1-\alpha)x_2^{**}] + i'(x_1^{**}) = c'[x_1^{**} - (1-\alpha)x_2^{**}] + \alpha i'(x_1^{**)}$$

However

$$i'(x_1^{**}) < \alpha i'(x_1^{**)}$$

And thus

$$b(x_1^{**}) < b(\tilde{x_1})$$

And

$$x_1^{**} > \tilde{x_1}$$

■

Proof. Lemma 7: $x^{**} > \dot{x}^*$

x^{**} and $\dot{x}^*$ are implicitly defined:

$$\begin{aligned} 2b'(x^{**}) - c'(\alpha x^{**}) - c'[(1-\alpha)\, x^{**}] - i'(x^{**}) &= 0 \\ c'(\alpha \dot{x}^*) + c'[(1-\alpha)\, \dot{x}^*] + i'(\dot{x}^*) &= 0 \end{aligned}$$

Or

$$\begin{aligned} c'(\alpha x^{**}) &= 2b'(x^{**}) - c'[(1-\alpha)\, x^{**}] - i'(x^{**}) \\ c'(\alpha \dot{x}^*) &= -c'[(1-\alpha)\, \dot{x}^*] - i'(\dot{x}^*) \end{aligned}$$

Suppose that $x^{**} = \dot{x}^*$, then:

$$c'(x^{**}) = c'(\dot{x}^*)$$

and

$$2b'(x^{**}) - c'[(1-\alpha)\, x^{**}] - i'(x^{**}) = -c'[(1-\alpha)\, x^{**}] - i'(x^{**})$$

or

$$2b'(x^{**}) = 0$$

Given that the standard x is always chosen such that its benefits are superior to zero, we know that $2b'(x^{**}) > 0$. Thus,

$$c'(x^{**}) > c'(\dot{x}^{*})$$

and

$$x^{**} > \dot{x}^{*}$$

■

Proof. Lemma 8 (i): $x^{**} > \mathring{x}^{**}$

Suppose that $x^{**} = \mathring{x}^{**}$, then $b(x^{**}) = b(\mathring{x}^{**})$

And

$$\frac{1}{2}\left[c'(\alpha x^{**}) + c'((1-\alpha)\, x^{**}) + i'(x^{**})\right] = c'(\alpha x^{**}) + c'((1-\alpha)\, x^{**}) + i'(x^{**})$$

However

$$\frac{1}{2}\left[\alpha c'(\alpha x^{**}) + (1-\alpha)\, c'((1-\alpha)\, x^{**}) + i'(x^{**})\right] < \alpha c'(\alpha x^{**}) + (1-\alpha)\, c'((1-\alpha)\, x^{**}) + i'(x^{**})$$

Thus,

$$b(x^{**}) < b(\mathring{x}^{**})$$

and

$$x^{**} > \mathring{x}^{**}$$

■

Proof. Lemma 8 (ii): $\mathring{x}^{**} > \dot{x}^{*}$

Suppose that $\mathring{x}^{**} = \dot{x}^{*}$, then $c(\alpha\mathring{x}^{**}) = c(\alpha\dot{x}^{*})$ Then

$$b'(\mathring{x}^{**}) - c'((1-\alpha)\,\mathring{x}^{**}) - i'(\mathring{x}^{**}) = c'((1-\alpha)\,\mathring{x}^{**}) - i'(\mathring{x}^{**})$$

$$\iff b'(\mathring{x}^{**}) = 0$$

However,

$$b'(\mathring{x}^{**}) > 0$$

So

$$c(\alpha\mathring{x}^{**}) > c(\alpha\dot{x}^{*})$$

and

$$\mathring{x}^{**} > \dot{x}^{*}$$

■

Proof. Lemma 9 (i): $x^{**} > \tilde{x}_2$

Suppose that $x^{**} = \tilde{x}_2$. Then $b'x^{**} = b'(\tilde{x_2})$ and

$$c_1'(\alpha x^{**}) + c_2'[(1-\alpha)x^{**}] + i'(x^{**}) = 2c_2'[(1-\alpha)x^{**}] \Leftrightarrow c_1'(\alpha x^{**}) + i'(x^{**}) = c_2'[(1-\alpha)x^{**}]$$

However,

$$c_1'(\alpha x^{**}) + i'(x^{**}) < c_2'[(1-\alpha)x^{**}]$$

Thus

$$b'x^{**} < b'\tilde{x_2})$$

And

$$x^{**} > \tilde{x}_2$$

■

Proof. Lemma 9 (ii): $\mathring{x}^{**} \gtreqless \tilde{x_2}$ undetermined

Suppose that $\mathring{x}^{**} = \tilde{x_2}$. Then $b(\mathring{x}^{**}) = b(\tilde{x_2})$ and

$$c_1'(\alpha\mathring{x}^{**}) + c_2'[(1-\alpha)\mathring{x}^{**}] + i'(\mathring{x}^{**}) = c_2'[(1-\alpha)\mathring{x}^{**}]$$

Or

$$c_1'(\alpha\mathring{x}^{**}) = -i'(\mathring{x}^{**})$$

We do not know *a priori* which of the three cases $c_1'(\alpha \mathring{x}^{**}) \gtreqless -i'(\mathring{x}^{**})$ applies. There are three possible configurations, depending on the relation of the marginal costs of hosting refugees and on the marginal costs of illegal immigraion. ■

Proof. Lemma 9 (iii): $\dot{x}^* \gtreqless \tilde{x}_2$ undetermined
Suppose that $\dot{x}^* = \tilde{x}_2$. Then $c'(\dot{x}^*) = c'(\tilde{x}_2)$ and

$$-c'(\alpha \dot{x}^*) - i'(\dot{x}^*) = b'(\dot{x}^*)$$

There are three possible configurations.
1. The marginal costs are equal to the marginal benefits:

$$-c'(\dot{x}^*) - i'(\dot{x}^*) = b'(\dot{x}^*)$$

Then

$$x^{**} = \tilde{x}_1$$

2. The marginal costs are greater than the marginal benefits:

$$-c'(\dot{x}^*) - i'(\dot{x}^*) > b'(\dot{x}^*)$$

Then

$$x^{**} > \tilde{x}_1$$

3. The marginal costs are smaller than the marginal benefits:

$$-c'(\dot{x}^*) - i'(\dot{x}^*) < b'(\dot{x}^*)$$

Then

$$x^{**} < \tilde{x}_1$$

■

Proof. Lemma 10 (i): $x^{**} \gtreqless \tilde{x}_1$ undetermined

Suppose that $x^{**} = \tilde{x}_1$. Then,

$$b'(x^{**}) = b'\tilde{x}_1$$

And

$$c'(\alpha x^{**}) + c'[(1-\alpha)\, x^{**}] + i'(x^{**}) = 2c'(\alpha x^{**}) + 2\alpha i'(x^{**})$$

Or

$$c'[(1-\alpha)\, x^{**}] - c'(\alpha x^{**}) = (2\alpha - 1)i'(x^{**})$$

There are three possible configurations.

1. The marginal hosting costs are equal to the marginal costs of illegal immigration:

$$c'[(1-\alpha)\, x^{**}] - c'(\alpha x^{**}) = (2\alpha - 1)i'(x^{**})$$

Then

$$b'(x^{**}) = b'(\tilde{x}_1)$$

and

$$x^{**} = \tilde{x}_1$$

2. The marginal hosting costs are greater than the marginal costs of illegal immigration:

$$c'[(1-\alpha)\, x^{**}] - c'(\alpha x^{**}) > (2\alpha - 1)i'(\tilde{x}_1)$$

Then

$$b'(x^{**}) > b'(\tilde{x}_1)$$

and

$$x^{**} < \tilde{x}_1$$

3. The marginal hosting costs are smaller than the marginal costs of illegal immigration:

$$c'[(1-\alpha)\, x^{**}] - c'(\alpha x^{**}) < (2\alpha - 1)i'(x^{**})$$

Then

$$b'(x^{**}) < b'(\tilde{x}_1)$$

and

$$x^{**} > \tilde{x}_1$$

■

Proof. Lemma 10 (ii): $\dot{x}^* \gtreqless \tilde{x}_1$ undetermined

Suppose that $\dot{x}^* = \tilde{x}_1$. Then $c'(\dot{x}^*) = c'(\tilde{x}_1)$ and

$$-c'[(1-\alpha)\dot{x}^*] - i'(\dot{x}^*) = b'(\dot{x}^*) - \alpha i'(\dot{x}^*)$$

There are three possible configurations.

1. The marginal costs are equal to the marginal benefits:

$$-c'(\dot{x}^*) - (1-\alpha)i'(\dot{x}^*) = b'(\dot{x}^*)$$

and

$$\dot{x}^* = \tilde{x}_1$$

2. The marginal costs are superior to the marginal benefits:

$$c'(\dot{x}^*) - (1-\alpha)i'(\dot{x}^*) > b'(\dot{x}^*)$$

and

$$\dot{x}^* > \tilde{x}_1$$

3. The marginal costs are superior to the marginal benefits:

$$c'(\dot{x}^*) - (1-\alpha)i'(\dot{x}^*) < b'(\dot{x}^*)$$

and

$$\dot{x}^* < \tilde{x}_1$$

■

Proof. Lemma 11 (i): $x_1^{**} > x^{**}$

Suppose that $x_1^{**} = x^{**}$. Then $b'(x_1^{**}) = b'(x^{**})$

And

$$c'[x^{**} - (1-\alpha)x^{**}] + i'(x^{**}) = \frac{1}{2}c'(\alpha x^{**}) + \frac{1}{2}c'[(1-\alpha)x^{**}] + \frac{1}{2}i'(x^{**})$$

However

$$c'(\alpha x^{**}) - c'[(1-\alpha)x^{**}] < -i'(x^{**})$$

So

$$b'(x_1^{**}) < b'(x^{**})$$

And

$$x_1^{**} > x^{**}$$

■

Proof. Lemma 11 (ii): $x_2^{**} \gtreqless x^{**}$ undetermined

Suppose that $x_2^{**} = x^{**}$. Then $b'(x_2^{**}) = b'(x^{**})$

And

$$-c'(\alpha x^{**}) + c'[(1-\alpha)x^{**}] = \frac{1}{2}c'(\alpha x^{**}) + \frac{1}{2}c'[(1-\alpha)x^{**}] + \frac{1}{2}i'(x^{**})$$

There are three possibilities.

1. The marginal hosting costs equal the marginal costs of illegal immigration.

$$-\frac{3}{2}c'(\alpha x^{**}) + \frac{1}{2}c'[(1-\alpha)x^{**}] = \frac{1}{2}i'(x^{**})$$

And $x_2^{**} = x^{**}$.

2. The costs of illegal immigration are high compared to the hosting costs.

$$-\frac{3}{2}c'(\alpha x^{**}) + \frac{1}{2}c'[(1-\alpha)x^{**}] > \frac{1}{2}i'(x^{**})$$

And $x_2^{**} < x^{**}$.

3. The costs of illegal immigration are low compared to the hosting costs.

$$-\frac{3}{2}c'(\alpha x^{**}) + \frac{1}{2}c'[(1-\alpha)x^{**}] < \frac{1}{2}i'(x^{**})$$

And $x_2^{**} > x^{**}$.

■

Proof. Lemma 11 (iii): $x_2^{**} \gtreqless \dot{x^*}$ undetermined

Suppose that $x_2^{**} = \dot{x^*}$. Then $c_2'[(1-\alpha)x_2^{**}] = c'[(1-\alpha)\dot{x^*}]$

And

$$-i'(\dot{x^*}) = b'(\dot{x^*}) + 2c'(\alpha\dot{x^*})$$

There are three possibilities.

1. The marginal hosting costs + the marginal benefits equal the marginal costs of illegal immigration.

$$-i'(\dot{x^*}) = b'(\dot{x^*}) + 2c'(\alpha\dot{x^*})$$

And $x_2^{**} = \dot{x^*}$.

2. The marginal costs of illegal immigration are high compared to the marginal hosting costs and marginal benefits.

$$-i'(\dot{x^*}) > b'(\dot{x^*}) + 2c'(\alpha\dot{x^*})$$

And $x_2^{**} > \dot{x^*}$.

3. The marginal costs of illegal immigration are low compared to the marginal hosting costs and marginal benefits.

$$-i'(\dot{x^*}) < b'(\dot{x^*}) + 2c'(\alpha\dot{x^*})$$

And $x_2^{**} < \dot{x^*}$.

■

Proof. Lemma 11 (iv): $\dot{x^*} < x_1^{**}$

We know from lemma 7 that $\dot{x^*} < x^{**}$ and from lemma 11 that (i) $x^{**} < x_1^{**}$ ■