University of Freiburg
Department of International Economic Policy
Discussion Paper Series
Nr. 7

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Mathias Czaika

January 2009
ISSN 1866-4113

University of Freiburg
Department of International Economic Policy
Discussion Paper Series

The Discussion Papers are edited by:
Department of International Economic Policy
Institute for Economic Research
University of Freiburg
D-79085 Freiburg, Germany
Platz der Alten Synagoge 1

Tel: +49 761 203 2342
Fax: +49 761 203 2414
Email: iep@vwl.uni-freiburg.de

Editor:
Prof. Dr. Günther G. Schulze

ISSN: *1866-4113*
Electronically published: 12.1.2008

The Political Economy of Refugee Migration

Mathias Czaika

Department for International Economic Policy, University of Freiburg

Abstract

This article examines the driving forces of the magnitude, composition and duration of refugee movements caused by conflict and persecution. The decision to seek temporary or permanent refuge in the region of origin or in a more distant asylum destination is based on inter-temporal optimization. We find that asylum seeking in Western countries is rather a phenomenon of comparatively less persecuted people. In an attempt to reduce their respective asylum burdens, Western countries and host countries in the region of origin are likely to end up in a race to the bottom of restrictive asylum policies. As an alternative, this study shows that proactive refugee-related aid transfers are, under certain circumstances, an effective instrument to relieve Western countries from asylum pressure.

Keywords: Refugee Movements, Asylum Policy, Foreign Aid

1. INTRODUCTION

Refugee situations are one of the most neglected or even forgotten human sufferings. An involuntarily displaced mass of people often lives for a significant period of time under appalling conditions in a state of limbo, mostly in a country that is not their own. Their dilemma is mostly threefold: going back to their home country is dangerous, primarily because of ongoing insecurity and persecution; in addition, they are often not allowed to settle freely and to be economically self-reliant in the first asylum country, and finally, they are practically unable to seek asylum in a Western country, either because of a lack of resources or the low prospects of receiving asylum status and permanent residence rights. As a result, in 2005, there were more than 9.2 million refugees, of which 5.5 million individuals were caught in a protracted or long-lasting situation (UNHCR, 2006b). The numbers, as well as the duration, of these situations have vastly increased during the past decade. In 1993, 27 protracted refugee situations existed and it is estimated that the average duration of major refugee situations will have increased from nine years in 1993 to an average duration of 17 years by the end of 2003 (UNHCR, 2006b; UNHCR, 2004).

It is generally acknowledged that the major causes of long-lasting refugee situations are political in nature. Unambiguously, the United Nations High Commissioner for Refugees (UNHCR) states that

> *"[...] Protracted refugee situations stem from political impasses. They are not inevitable, but are rather the result of political action and inaction, both in the country of origin (the persecution or violence that led to flight) and in the country of asylum. They endure because of ongoing problems in the countries of origin, and stagnate and become protracted as a result of responses to refugee inflows, typically involving restrictions on refugee movement and employment possibilities, and confinement to camps."* (UNHCR, 2004)

This article provides the theoretical background for an analysis of refugee migration and the role of alternative asylum policies in explaining this phenomenon. A review of the economic migration literature reveals a severe lack of

research dealing with refugee movements. Most of the early migration literature is based upon static rural-urban or international wage differentials (Sjaastadt, 1962; Todaro, 1969; Harris & Todaro, 1970). According to this, regional or international wage differentials are the driving incentives for voluntary and permanent migration. This does not reflect the reality of refugee movements. By definition, refugees do not flee for purely economic reasons, at least initially; and, refugee migration is not necessarily a one-way movement, and thus, not a permanent phenomenon. For realizing the latter, temporary migration models introduce a special loyalty held by individuals for their home country. Voluntarily return migration then is induced by the migrant's special preferences for consumption at home being higher than abroad (Djajic & Milbourne, 1988; Dustmann, 2003; Brücker & Schröder, 2006).

However, this special loyalty for the home country is 'reduced' for individuals that are victims of conflict and persecution. Refugees, unlike economic migrants, leave their home country even if the economic situation abroad is inferior. But, even if consumption at home might be foiled by insecurity and danger, there is some empirical evidence that refugees living in encampments under very poor conditions just across the border often return home despite ongoing repressions and substantial risks of being affected by civil strife (Rogge, 1994). These effects are also not captured by existing migration models.

Furthermore, refugees also have the option to seek asylum in a Western country that promises better economic perspectives, although the incentive to move on to a Western country is cushioned by the uncertainty about the asylum application's outcome. Thus, asylum policies of Western countries, as well as that of the conflict-neighboring first asylum countries, need to be taken into account when analyzing the migration decision of persecuted individuals.

Consequently, a satisfactory model for understanding the mechanisms of refugee movements and their protraction must contain features of (i) temporary and permanent migration, (ii) economic and non-economic push and pull factors, (iii) uncertainty about the success of an asylum seeking process, and (iv) a non-static framework for analyzing inter-temporal migration patterns. Therefore, a dynamic

model is required to approach alternative migration options in a long-term time horizon.

The innovation of this study is to model the simultaneous decision on seeking asylum in a Western country, moving temporarily or permanently across the border to a neighboring first asylum country, or staying at home. This framework will enable the analysis of the alternative policies available to both neighboring first asylum and Western destination countries that we indentify as decisive in explaining the pattern and duration of international refugee migration movements.

The remainder of this article is structured as follows. The next section outlines the migration model and derives some core propositions. Then, we discuss various implications of reactive and proactive counter-asylum policies for the refugee migration pattern. Section 4 concludes the article.

2. MODEL ANALYSIS

This basic analytical framework models the intertemporal migration decision of N heterogeneous individuals living in a country of origin O before a conflict breaks out. Heterogeneity of individuals refers to the extent each individual is affected by this conflict, i.e. individual persecution level p in the home country O is uniformly distributed with density N between [0,1]. According to the respective persecution level, the individuals decide upon several migration options to realize for the rest of their lifetime T_i, which is normalized to unity.[1] The three migration options are: first, staying in the conflict affected country of origin O despite threat and persecution, second, emigrating (with negligible migration costs) for the period $0 < \tau_i \leq 1 = T_i$, i.e. temporarily or permanently, to a neighboring first asylum country S where security is guaranteed but where confinement to a camp or limitations in self-reliance impose worse economic conditions, or third, the opportunity to migrate (with migration costs M^W) to a Western industrialized

[1] This assumption does not change the qualitative results of the subsequent model.

country W with better economic prospects (and security) to seek asylum, but with the risk of being rejected and deported to the home country O.[2]

Conditions are such that each individual could receive an income level of y^O at home, y^S in the first asylum country, and y^W in Western industrialized country, assuming that y^W is by far larger than the income levels of the other two developing countries, y^O and y^S.[3] However, income generation is hindered by the first asylum country, i.e. the level of economic self-reliance s is a policy parameter with $0 < s < 1$, indicating the proportion of the standard income level y^S that is actually available for refugees. The disposable income in the first asylum country is then given by sy^S.[4]

The utility $u(.)$ an individual derives from time-invariant consumption either in the country of origin (c_i^O), the (neighboring) first asylum country (c_i^S), or in the Western country (c_i^W), respectively, are given by:

$$u^O(c_i^O) = p_i^{1-\alpha} {c_i^O}^{\alpha}, \tag{1}$$

$$u^S(c_i^S) = {c_i^S}^{\alpha}, \tag{2}$$

$$u^W(c_i^W) = {c_i^W}^{\alpha}. \tag{3}$$

[2] For simplicity reasons, asylum recognition rates are not specific to individuals but to the whole population of asylum seekers.

[3] We further assume that before the conflict broke out at time $t = 0 - \varepsilon$, only economic migrants that could afford the high migration costs M^W left the country of origin towards the Western country. For the remaining N individuals staying permanently at home is the superior solution in times of peace.

[4] For instance, economic self-reliance might be restricted by confinement to a refugee camp or a closed settlement, constrained work permission, limited land ownership, etc., all of which lessens human capital productivity and the potential to generate income in the first asylum country.

Generally, the migration decision and its realization takes place at $t = 0$ for all N individuals.[5]

The Cross-Border Option

For the first migration option, moving to the (neighboring) first asylum country S, the individual must choose the duration for the stay, τ_i, and the consumption levels abroad and at home (if migration is temporary). Thus, each individual maximizes its lifetime utility V_i^S with respect to duration and consumption, i.e.

$$V_i^S = \tau_i \left[c_i^S\right]^\alpha + (1-\tau_i)\, p_i^{1-\alpha}\left[c_i^O\right]^\alpha \tag{4}$$

subject to the individual's budget constraint:

$$\tau_i s y^S + (1-\tau_i) y^O - \tau_i c_i^S - (1-\tau_i) c_i^O \geq 0. \tag{5}$$

The first-order conditions of the corresponding Lagrange function $\mathcal{L}_i$ (with λ as Lagrangian) are:

$$\frac{\partial \mathcal{L}}{\partial c_i^O} = \alpha p_i^{1-\alpha}\left[c_i^O\right]^{\alpha-1} - \lambda \stackrel{!}{=} 0 \tag{6}$$

$$\frac{\partial \mathcal{L}}{\partial c_i^S} = \alpha\left[c_i^S\right]^{\alpha-1} - \lambda \stackrel{!}{=} 0 \tag{7}$$

$$\frac{\partial \mathcal{L}}{\partial \tau_i} = \left[c_i^S\right]^\alpha - p_i^{1-\alpha}\left[c_i^O\right]^\alpha + \lambda(s y^S - y^O + c_i^O - c_i^S) \stackrel{!}{=} 0 \tag{8}$$

$$\frac{\partial \mathcal{L}}{\partial \lambda} = \tau_i s y^S + (1-\tau_i) y^O - \tau_i c_i^S - (1-\tau_i) c_i^O \stackrel{!}{=} 0 \tag{9}$$

The Lagrangian λ, i.e. the shadow value of income, is also time-invariant. Eqs. (6) and (7(imply that

[5] At this point of time, the both asylum countries have already decided on their respective asylum policies.

$$p_i c_i^S = c_i^0. \tag{10}$$

This condition indicates that consumption at home is a linear function of consumption abroad, i.e. the marginal utility of consumption at home and abroad must be equal. This condition (10) generates together with eqs. (8) and (6) explicit consumption levels for at home and abroad:

$$c_i^S = \frac{\alpha(y^O - sy^S)}{(1 - p_i)(1 - \alpha)} = \frac{c_i^0}{p_i}. \tag{11}$$

For temporary migrants, consumption at home and abroad is related to the bilateral income differential between the country of origin and the first asylum country; consumption abroad exceeds their disposable income abroad (i.e. negative savings). Thus, in order to not exceed the intertemporal budget, the refugee returns home. Substituting eqs. (10) and (11) into eq. (9), the optimal duration of the stay abroad is determined by the other model parameters:

$$\tau_i(p_i) = \frac{\alpha p_i}{(p_i - 1)} - \frac{y^O}{sy^S - y^O}(1 - \alpha). \tag{12}$$

with $\frac{\partial \tau_i}{\partial p_i} = \frac{-\alpha}{(p-1)^2} < 0$, and $\frac{\partial^2 \tau_i}{\partial p_i^2} = \frac{2\alpha}{(p-1)^3} < 0$.

Figure 1 displays the duration function $\tau_i(p_i)$ of the cross-the border option. The higher the persecution level (i.e. the lower p_i), the longer the refugee stays abroad. For individuals with a persecution level $p_i < \underline{p}$, the optimal value of $\hat{o}_i$ is larger unity (i.e. the total lifetime), which means that the individual migrates permanently into the first asylum country; for less persecuted individuals with $p_i > \overline{p}$, the migration duration $\hat{o}_i$ is smaller zero, i.e. the respective individuals stay at home for their life time. All individuals with medium persecution levels p_i^{temp} stay only temporarily in the first asylum country:

$$\frac{sy^S - \alpha y^O}{(1 - \alpha)sy^S} = \underline{p} < p_i^{temp} < \overline{p} = \frac{y^O(1 - \alpha)}{y^O - \alpha sy^S}. \tag{13}$$

Proposition 1

The following constraints describe the cross-the-border migration option:

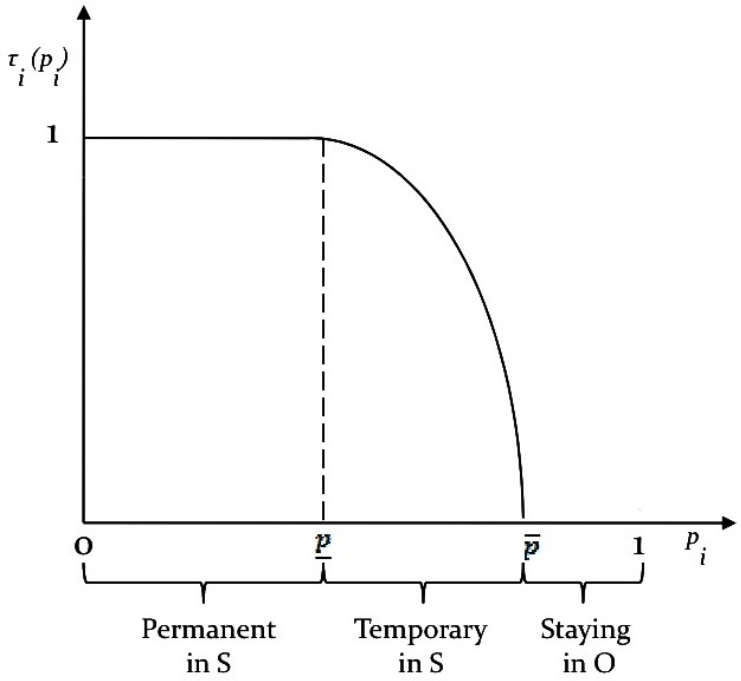
(i) *There are individuals that do not leave the home country, or only leave temporarily, if there exists a negative income differential, i.e.* $0 \leq \overline{p} \leq 1$, *if* $0 \leq sy^S \leq y^O$.

(ii) *There are individuals that leave the home country permanently, if the self-reliance level in the first asylum country is not too strict, i.e.* $\underline{p} \geq 0$, *if* $s \geq \frac{\alpha y^O}{y^S}$.

(iii) *There is a total permanent outflow of all individuals, if the economic situation abroad is definitely superior to the situation at home, i.e.* $\underline{p}, \overline{p} > 1$, *if* $s > \frac{y^O}{y^S}$.

We assume that Proposition 1 (*i* and *ii*) hold for all of the subsequent analysis.

Figure 1 *Cross-border Migration Duration of Persecuted Individuals*



Finally, the optimized utility function with respect to the individual persecution level p_i is then given by substituting eqs. (12), (11), and (10) into (4), taking into account the constraints of (13):

$$V^S(p_i) = \begin{cases} [sy^S]^\alpha, \\ (1-\alpha)\cdot Z\cdot\left[\frac{y^O - p_i s y^S}{y^O - s y^S}\right], \\ p_i^{1-\alpha}[y^O]^\alpha, \end{cases} \quad \text{if} \begin{cases} 0 \le p_i \le \underline{p}, \\ \underline{p} < p_i < \overline{p}, \\ \overline{p} \le p_i \le 1, \end{cases} \tag{14}$$

$$\text{with } \frac{\partial V^S}{\partial p} = \begin{cases} 0 & = 0, \\ Z\cdot\frac{(1-\alpha)(\alpha y^O - s y^S(1+p(\alpha-1)))}{(y^O - s y^S)(1-p)} & > 0, \\ (1-\alpha)p_i^{-\alpha}[y^O]^\alpha & > 0, \end{cases} \quad \text{if} \begin{cases} 0 \le p_i \le \underline{p}, \\ \underline{p} < p_i < \overline{p}, \\ \overline{p} \le p_i \le 1, \end{cases}$$

$$\text{and } \frac{\partial^2 V^S}{\partial p^2} = \begin{cases} 0 & = 0, \\ Z\cdot\frac{\alpha(1-\alpha)((1+\alpha)y^O - s y^S(p(1-\alpha)-2))}{(y^O - s y^S)(1-p)^2} & > 0, \\ \alpha(\alpha-1)p_i^{-1-\alpha}[y^O]^\alpha & < 0, \end{cases} \quad \text{if} \begin{cases} 0 \le p_i \le \underline{p}, \\ \underline{p} < p_i < \overline{p}, \\ \overline{p} \le p_i \le 1, \end{cases}$$

$$\text{and } Z \equiv \left[\frac{\alpha(y^O - s y^S)}{(1-p_i)(1-\alpha)}\right]^\alpha > 0.$$

The Asylum-Seeking Option

As an alternative to the cross-border option, the refugee may move to a third country to seek asylum. A generally preferred destination for that movement is a Western country W that promises better economic prospects. However, low asylum recognition rates that signal low chances of being accepted may discourage asylum migration.[6] Uncertainty about the asylum admission process exposes potential asylum seekers to the risk of being deported to the country of origin.[7] In this model, an asylum seeker is accepted with probability r, which is the asylum recognition

[6] This implication has been verified in several empirical studies providing evidence for the negative impact of low recognition rates on asylum applications in EU member states (Vink & Meijerink, 2003; Neumayer, 2004; Neumayer, 2005).

[7] In this model, we consider only the case in which rejected asylum seekers are deported to their country of origin, acknowledging that this is often not accomplished by asylum states because of the non-refoulement proviso of the 1951/67 UN Refugee Convention. Alternatively, rejected asylum seekers are often sent back to a safe third country.

rate, or with probability $(1-r)$ he/she is rejected and deported back to the home country where the individual stays for the rest of their lifetime $T_i = 1$.[8] To realize this migration option, the asylum seeker must invest migration costs M^W. These costs must not be larger than the alternative lifetime income at home, i.e. $M^W \leq y^O$, since in the case of deportation, the intertemporal budget constraint must still hold.[9] The recognition rate is the policy parameter that indicates whether the Western asylum country is rather liberal (r is large) or restrictive (r is small) in its asylum policy.

With respect to this asylum option, the expected utility for the individual is given by:

$$V_i^W = r_i \mathrm{c_i^W}^{\alpha} + (1-r_i)\ \mathrm{p_i^{1-\alpha}} \mathrm{c_i^O}^{\alpha} \tag{15}$$

subject to the respective consumption levels abroad and at home:

$$c^O = y^O - M^W, \tag{16}$$

$$c^W = y^W - M^W, \tag{17}$$

Substituting eqs. (16) and (17) into (15) delivers the expected utility with respect to the individual's persecution level:

$$V_i^W = r_i(y^W - M^W)^{\alpha} + (1-r_i)\ \mathrm{p_i^{1-\alpha}}(y^O - M^W)^{\alpha} \tag{18}$$

with $\frac{\partial V^W}{\partial p} > 0$ and $\frac{\partial^2 V^W}{\partial p^2} < 0$.[10]

[8] For simplicity reasons we assume that the migration movement itself and the asylum procedure are not time-consuming.

[9] In fact, we exclude the case that a rejected and deported asylum seeker emigrates again to the first asylum country. This model variation is possible, but makes it less tractable.

[10] See derivations in the Appendix.

Figure 2 *The Refugee Migration Decision: Who, Where, and How long*

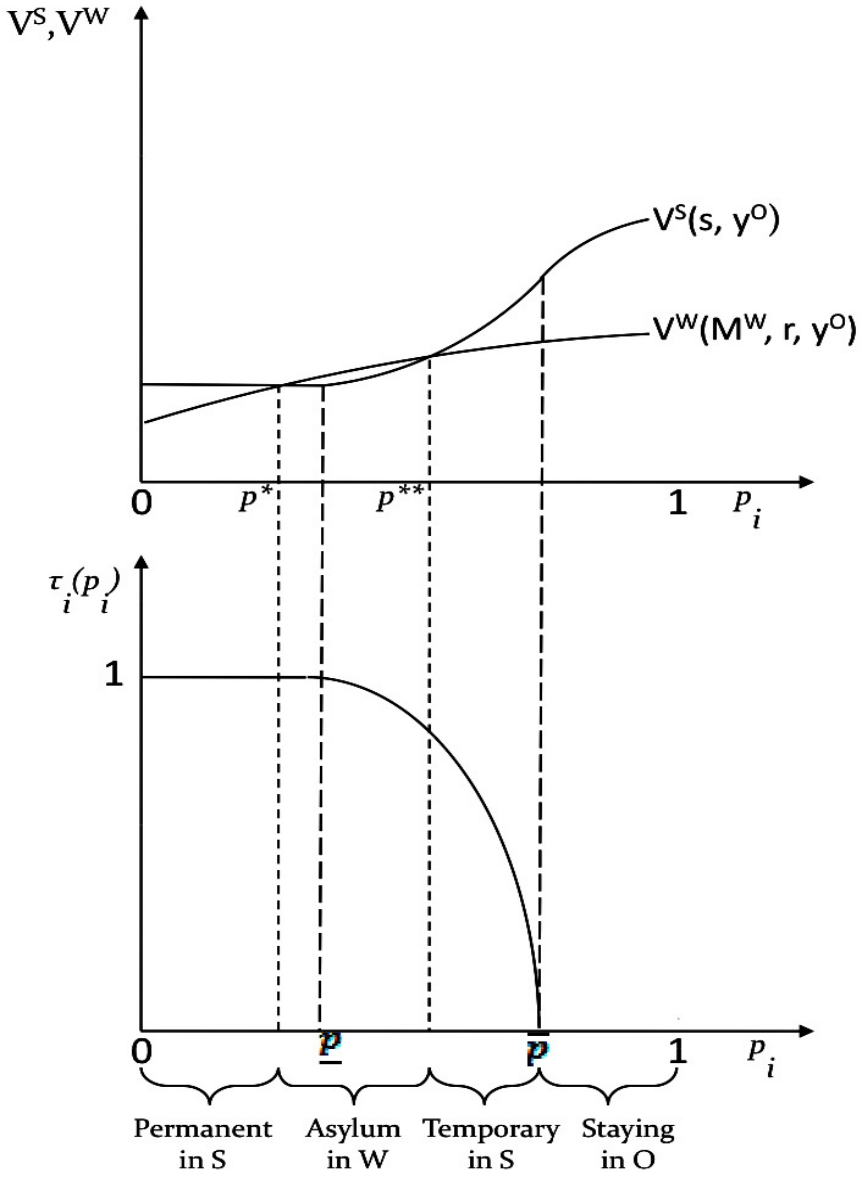


Figure 2 displays the utility curves of the two alternative migration options, $V_i^W(p_i)$ and $V_i^S(p_i)$. Individuals choose the asylum seeking option if and only if $V_i^W(p_i) > V_i^S(p_i)$. Depending on the exogenous parameters, the 'cross-the-border' utility function and concave-shaped 'asylum option' can have a maximum of two cut-off values. The two possible cut-off persecution levels p^* and p^{**} (with $p^{**} \geq p^*$) for the decision between the two migration options, i.e. asylum seeking in the

first asylum country or cross-border emigration, are determined by the equality of the two utility functions:[11]

$$V^S(p^*) - V^W(p^*) \stackrel{!}{=} 0 \quad \text{with} \quad \frac{\partial V^S(p^*)}{\partial p} - \frac{\partial V^W(p^*)}{\partial p} \leq 0.$$
$$V^S(p^{**}) - V^W(p^{**}) \stackrel{!}{=} 0 \ \text{ with } \quad \frac{\partial V^S(p^{**})}{\partial p} - \frac{\partial V^W(p^{**})}{\partial p} \geq 0.^{12} \tag{19}$$

According to this condition, all individuals become asylum seekers in the Western country, if

$$V^W(\mathrm{p}=0) > V^S(\mathrm{p}=0), \text{ and } V^W(\mathrm{p}=1) > V^S(\mathrm{p}=1),$$

i.e. if $\frac{(\mathrm{y^O})^\alpha - (\mathrm{y^O - M^W})^\alpha}{(\mathrm{y^W - M^W})^\alpha - (\mathrm{y^O - M^W})^\alpha} < \mathrm{r} > \left(\frac{\mathrm{sy^S}}{\mathrm{y^W - M^W}}\right)^\alpha$.

This holds, if the value of the asylum option is very high, i.e. if the migration costs M^W are very low, the income gap $(\mathrm{y^W} - \mathrm{y^O})$ is very high, and the asylum policy of the Western country is very liberal (high r).

There is only one intersection point p^{**}, if

$$V^W(\mathrm{p}=0) > V^S(\mathrm{p}=0), \text{ and } V^W(\mathrm{p}=1) < V^S(\mathrm{p}=1),$$

i.e. if $\frac{(\mathrm{y^O})^\alpha - (\mathrm{y^O - M^W})^\alpha}{(\mathrm{y^W - M^W})^\alpha - (\mathrm{y^O - M^W})^\alpha} < \mathrm{r} < \left(\frac{\mathrm{sy^S}}{\mathrm{y^W - M^W}}\right)^\alpha$.

The singular cut-off value p^{**}, with $0 < p^{**} < 1$, is caused by low migration costs $\mathrm{M^W}$ or a 'moderate' Western asylum policy *r* with individuals migrating either to the Western asylum country (those with $0 < p_i < p^{**}$) and those staying at home (or fleeing temporarily to the neighboring country *S*). Furthermore, there is only one intersection point p^*, if

$$V^W(\mathrm{p}=0) < \mathrm{V_i^S}(\mathrm{p}=0), \text{ and } V^W(\mathrm{p}=1) > V^S(\mathrm{p}=1),$$

[11] See the Appendix for some explicit calculations of p^* and p^{**}.

[12] If the two curves osculate, i.e. where $\frac{\partial V^S(p)}{\partial p} = \frac{\partial V^W(p)}{\partial p}$, it follows $p^* = p^{**}$, indicating no asylum migration to the Western country.

i.e. if $\left(\frac{sy^S}{y^W-M^W}\right)^{\alpha} < r < \frac{(y^O)^{\alpha}-(y^O-M^W)^{\alpha}}{(y^W-M^W)^{\alpha}-(y^O-M^W)^{\alpha}}$.

In this case, highly persecuted people (i.e., $p_i < p^*$) leave the home country and enter the neighboring country across the border, while less persecuted individuals choose the long-distance asylum option in a Western country. Why? Highly persecuted and risk-averse individuals that face the risk $(1-r)$ of involuntary repatriation (deportation) to the home country have a stronger incentive to avoid this risk than less endangered fellows. Therefore, better economic prospects in the Western asylum country have a relatively strong impact for those individuals that have lower opportunity costs arising from the option of living in persecution at home. Thus, those who seek asylum in the Western country are rather the less persecuted refugees compared to those fleeing to a neighboring first asylum country.

Two cut-off values (as in Figure 2) are possible, if

$$V^W(p=0) < V^S(p=0), \text{ and } V^W(p=1) < V^S(p=1),$$

i.e. if $\left(\frac{sy^S}{y^W-M^W}\right)^{\alpha} > r < \frac{(y^O)^{\alpha}-(y^O-M^W)^{\alpha}}{(y^W-M^W)^{\alpha}-(y^O-M^W)^{\alpha}}$.

In this case, the Western asylum policy is rather strict. However, if it is too strict, the asylum option is inferior for all individuals and no asylum migration to the Western country takes place (i.e., no intersection with $V^W(p) = V^S(p)$).

Proposition 2

(i) *There are individuals that do not leave the home country, if the income differential between it and the Western country is not too large or migration costs are rather high, i.e. if* $V^W(p=1) < V^S(p=1)$, *i.e. if* $y^W - M^W < y^O$. *(Note: Proposition 1 (i) must still hold, i.e.,* $sy^S < y^O$.*)*

(ii) *There is no permanent emigration to the first asylum country, but instead individuals migrate to the Western asylum country, if the asylum recognition rate is not too low, i.e. if* $V^W(p=0) > V^S(p=0)$, *i.e. if* $r > \left(\frac{sy^S}{y^W-M^W}\right)^{\alpha}$.

Since the persecution levels of the N individuals of the conflict-affected country of origin are assumed to be uniformly distributed between [0,1], the number of asylum seekers to the Western asylum country AS^W is then given by:[13]

$$AS^W = N(p^{**} - p^*). \tag{20}$$

The subsequent analysis of policy implications is based on comparative statics based on the total differential of eqs. (19) and the effects on the number of asylum seekers to the Western asylum country AS^W.

3. COUNTER-ASYLUM POLICIES

This section analyzes the effects of exogenous changes to some policy parameters on the pattern of refugee migration movements.

3.1. DEFENSIVE ASYLUM POLICY: ASYLUM RESTRICTION

Decline in Self-Reliance in the Cross-the-Border Country

If the level of self-reliance s decreases, the consumption level of the permanent cross-border refugees decreases, while that of the temporary refugees increases, and that of the individuals that stay at home remains unchanged. Correspondingly, the average duration spent abroad increases for the whole conflict-affected population:

$$\frac{\partial c^S}{\partial s} = \begin{cases} y^S > 0 \\ \dfrac{-\alpha y^S}{(1-p)(1-\alpha)} < 0 \\ 0 \end{cases} \text{ if } \begin{cases} 0 \le p_i \le \underline{p}, \\ \underline{p} < p_i < \overline{p}, \text{ and} \\ \overline{p} \le p_i \le 1, \end{cases} \tag{21}$$

$$\frac{\partial \tau}{\partial s} = \begin{cases} 0 \\ \dfrac{y^S y^O (1-\alpha)}{(s y^S - y^O)^2} > 0 \\ 0 \end{cases} \text{ if } \begin{cases} 0 \le p_i \le \underline{p}. \\ \underline{p} < p_i < \overline{p}. \\ \overline{p} \le p_i \le 1. \end{cases} \tag{22}$$

[13] Obviously, the number of admitted asylum seekers is given by $AS^{W*} = r \cdot N(p^{**} - p^*)$.

The upper and lower cut-off values for temporary migration change accordingly:

$$\frac{\partial \underline{p}}{\partial s} = \frac{\alpha(1-\alpha)y^S y^O}{((1-\alpha)sy^S)^2} > \frac{\alpha(1-\alpha)y^S y^O}{(y^O - \alpha s y^S)^2} = \frac{\partial \overline{p}}{\partial s} > 0, \qquad (23)$$

This implies that if the first asylum country becomes more liberal in granting higher levels of self-reliance s, then *ceteris paribus* the number of hosted permanent refugees increases and the number of returnees (i.e., temporary refugees) decreases.

Graphically, a liberalization of self-reliance activities for cross-border refugees shifts the $V^S(p_i)$-curve upwards for persecution levels $p_i < \overline{p}$, but remains unchanged for the less persecuted population $p_i > \overline{p}$ (see Figure 3). Consequently, this positive shift in the value of the cross-the-border option has a reducing effect on asylum migration:

$$\frac{dp^{*(**)}}{ds} = \frac{\frac{\partial V^W}{\partial s} - \frac{\partial V^S}{\partial s}}{\frac{\partial V^S}{\partial p} - \frac{\partial V^W}{\partial p}} \begin{matrix} \geq 0 \text{ for } p^*, \\ \leq 0 \text{ for } p^{**}, \end{matrix} \qquad (24)$$

resulting from eqs. (19), $\frac{\partial V^W}{\partial s} = 0$ and $\frac{\partial V^S}{\partial s} \geq 0$.[14] Thus, it follows that the number of asylum seekers decreases if the first asylum country becomes more liberal in its self-reliance policy:

$$N \frac{d(p^{**} - p^*)}{ds} \leq 0. \qquad (25)$$

Eqs. (22), (23) and (25) imply that if the economic situation for refugees in the first asylum country improves by granting extended economic self-reliance, then (i) the number of permanent cross-border refugees does not decrease, (ii) the number of asylum seekers in the Western country does not increase, (iii) the total stock of emigrants does not decrease, and (iv) the average duration of a refugee situation in the first asylum country does not decrease. Thus, Western asylum countries have a reasonable self-interest in a more liberal refugee policy in cross-the-border countries. This holds particularly when small geographical distances make the

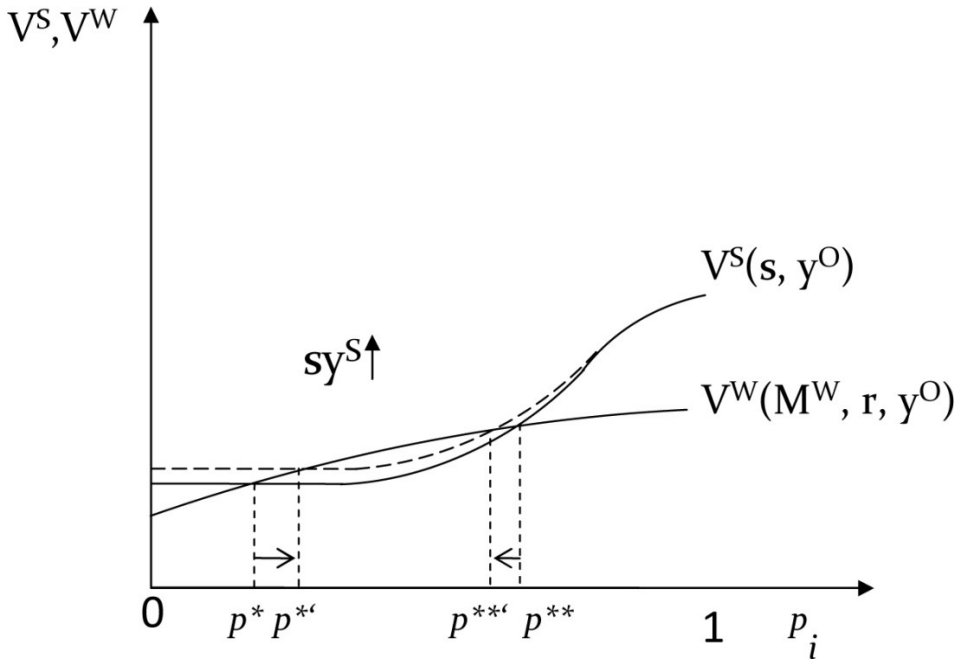
[14] See derivation of the latter in the Appendix.

migration costs M^W for migrating to a Western country relatively affordable to asylum seekers.

Proposition 3

An increasing degree of self-reliance in the first asylum country in terms of a liberalizing refugee and integration policy (e.g. including work permissions, use of local services, etc.) increases ceteris paribus the value of the cross-the-border option and protracts a refugee situation.

Figure 3 *Liberalization of Self-Reliance in the First Asylum Country*



Decline in Recognition Rates in the Western Asylum Country

With respect to the restrictions on asylum immigration in the Western country, asylum admission policy is an effective instrument for regulating the stock of asylum seekers. As shown in Figure 4, the value of the asylum option decreases for all individuals, and consequently, the number of individuals seeking asylum in the Western country diminishes, increasing the number who choose to stay in the region of origin:

$$\frac{dp^{*(**)}}{dr} = \frac{\frac{\partial V^W}{\partial r} - \frac{\partial V^S}{\partial r}}{\frac{\partial V^S}{\partial p} - \frac{\partial V^W}{\partial p}} \begin{matrix} < 0 \text{ for } p^*, \\ > 0 \text{ for } p^{**}, \end{matrix} \qquad (26)$$

by taking into account eqs. (19), $\frac{\partial V^S}{\partial r} = 0$, and $\frac{\partial V^W}{\partial r} > 0$.[15] The same asylum reducing effect holds for increasing migration costs M^W.[16]

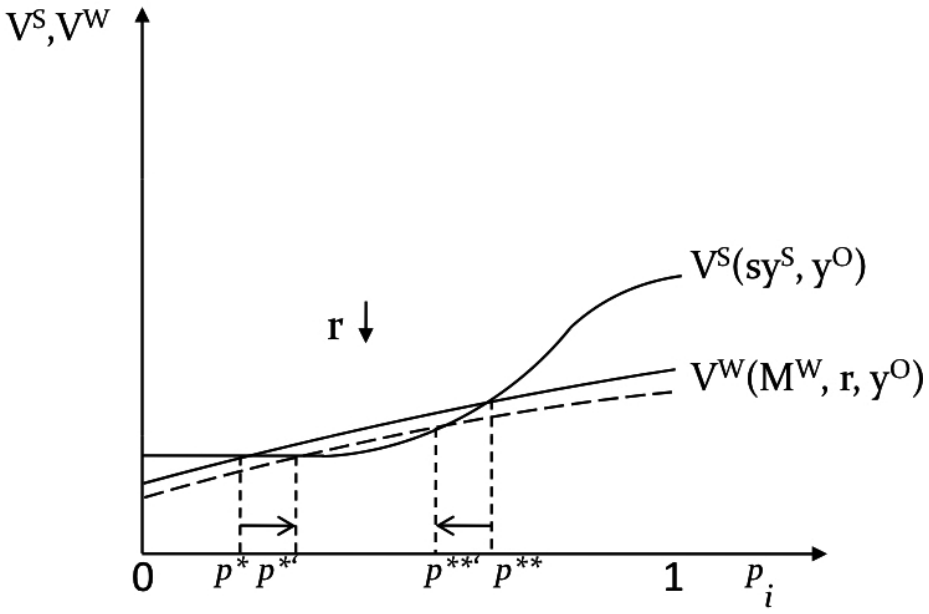
Proposition 4

A more liberal asylum policy in the Western destination alleviates the refugee situation in the cross-the-border country, while rising migration costs for realizing the asylum option to the Western asylum country deflects refugee flows towards the cross-the-border country.

[15] See derivation of the latter expression in the Appendix.

[16] If the Western asylum country held no 'bias' for asylum seekers from a specific background, i.e. if $V^W(p)$ is equal for asylum seekers from different countries, then asylum recognition rates tend *ceteris paribus* to be lower for asylum seekers from countries close to the Western destination, since migration costs for them are more moderate (Proof: $\frac{dr}{dM^W} > 0$ for $dV^W = 0$).

Figure 4 *Declining Asylum Recognition Rate in the Western Asylum Country*



As a consequence of a more restrictive asylum policy in the Western country, the inflow of a large refugee population aggravates the public perception within the first asylum country of refugees as an economic and political burden and a threat for the internal security of the civil society. Consequently, the first asylum country might intensify encampment and reduce economic self-reliance, worsening the refugees' situation (Loescher & Milner, 2005). This policy response of the first asylum country is driven by the expectation that a more liberal encampment policy with enhanced opportunities for the economic self-reliance of the refugees would rather protract the refugee situation within its territory. Potential refugees expecting to live under appalling encampment conditions are then ceteris paribus more likely to repatriate earlier or to choose immediately the asylum option in a Western country. As a consequence, the Western country is likely to respond in an analogous manner by restricting asylum conditions (i.e., reducing recognition rates). Finally, a race to the bottom is established with highly restrictive asylum policies in the Western world and appalling refugee and encampment conditions in the conflict-affected developing world.

The challenge of international refugee politics is to solve this apparent dilemma of restrictive asylum policies, which is, in economic terms, an inefficient equilibrium. Deterrence, deflection, detention, and deportation of refugees are counterproductive measures for resolving the appalling conditions for refugees, including the waste of resources for long-distance asylum migration. But beyond this, without dealing with the root causes of the refugee movements, these measures are also costly to the respective asylum countries, e.g. by increasing costs for border control, administration and maintenance due to the increasing propensity of refugees and asylum seekers to stay irregularly in the respective asylum country. An alternative to this bilateral asylum restriction policy might be a more proactive approach, particularly on the side of Western countries, that might tackle the underlying causes of asylum-seeking in both the country of origin and the first asylum country.

3.2. Proactive Asylum Policy: Migration Preventive Aid Transfers

The Western country may invest resources into proactive measures for tackling the root causes in the conflict-ridden country of origin or sharing the refugee-burden in the first asylum country, assisting local integration that might also reduce the asylum migration pressure to the Western country. Although there are various proactive policies available, the focus in this analysis is on migration-preventive *aid* transfers from the Western asylum country to the country of origin or the first asylum country. The crucial question of any proactive asylum policy in terms of migration-preventive aid is whether aid can indeed reduce asylum migration flows? Or, in terms of the present model, does an aid-induced increase of income levels in the country of origin or the first asylum country relieve the asylum burden in the Western country?

The following analysis presumes that aid is to some extent income-effective. A necessary condition for this to be true is that aid, when transferred from the donor to the respective recipient country, is indeed channeled within the recipient country

to the refugee population where aid can develop the income-generating effect. This is a necessary condition of the subsequent discussion.

Aid to the First Asylum Country

First asylum countries are often overstressed and unable to tackle the political and economic challenges that large refugee inflows provoke. A common reaction of these cross-the-border countries is to confine refugees within camps, denying them freedom of movement, access to social services, or economic self-reliance. Aid targeted at refugees in first asylum countries shall promote the living standards of the refugees. But what is the effect on the first asylum country itself? According to the previous model, an aid-induced increase in the refugees' income level implies that ceteris paribus the total refugee stock in the first asylum country increases:

$$\frac{\partial \underline{p}_i}{\partial y^S} = \frac{\alpha y^O}{s(1-\alpha)[y^S]^2} > \frac{\alpha s(1-\alpha)y^O}{(y^O - \alpha s y^S)^2} = \frac{\partial \overline{p}_i}{\partial y^S} > 0, \qquad (27)$$

However, the net outcome for the first asylum country depends on the effect of asylum migration to the Western country:

$$\frac{dp^{*(**)}}{dy^S} = \frac{\frac{\partial V^W}{\partial y^S} - \frac{\partial V^S}{\partial y^S}}{\frac{\partial V^S}{\partial p} - \frac{\partial V^W}{\partial p}} \begin{matrix} \geq 0 \text{ for } p^* \\ \leq 0 \text{ for } p^{**} \end{matrix} \qquad (28)$$

with eqs. (19) and by taking into account that $\frac{\partial V^W}{\partial y^S} = 0$ and $\frac{\partial V^S}{\partial y^S} \geq 0$.[17]

Income-increasing aid towards the first asylum country has an unambiguous reducing effect on the number of asylum seekers in the Western country. Thus, if aid is channeled to the respective refugee population (and if it is effective in increasing their income level), the asylum pressure to the Western country does not increase (see also Figure 3):

$$N\frac{d(p^{**} - p^*)}{dy^S} \leq 0. \qquad (29)$$

[17] See derivation of the latter in the Appendix.

While this policy is beneficial to the Western country, it leaves the first asylum country with a higher number of refugees. Interestingly, although this policy might work for the interests of Western donor countries, they are nevertheless reluctant to provide more resources for that purpose (UNHCR, 2006a; Czaika & Mayer, 2008). Why? Possibly, Western countries don't consider aid to be as effective in generating additional income for the refugees or they take the negative consequences for the first asylum countries into account. Obviously, these first asylum countries are even more reluctant for Western countries to adopt this policy, because it shifts and consolidates the refugee-burden onto their territory. As a consequence, the first asylum country would respond by imposing further restrictions on economic self-reliance and encampment conditions for refugees. Finally, refugee-hosting developing countries might oppose the diversion of aid from the needs of the native population to the refugees within their territory.

Aid to the Country of Origin

Alternatively, the Western asylum country could transfer aid towards the country of origin in order to reduce refugee outflow and facilitate a sustainable voluntary repatriation. Pre-conditioned by the fact that countries of origin do not hinder a voluntary repatriation of their population after mass emigration, rapid post-conflict reconstruction with appropriate levels of civil security, basic social services and economic perspectives for returnees might be a prior rationale for targeting foreign aid towards the country of origin (UNHCR, 2006a).

Obviously, cross-the-border asylum countries are also interested in sustainable return solutions with voluntary repatriation and reintegration of refugees that would otherwise stay within their territory. Thus, aid to the country of origin that ensures rising income levels for the conflict-affected population is also in the interest of first asylum countries, since –without considering asylum migration to the Western country- the total stock of refugees in the first asylum country decreases, with the less persecuted people going home first:

$$\frac{\partial \underline{p}_i}{\partial y^O} = \frac{\alpha}{(\alpha-1)sy^S} < \frac{\alpha(\alpha-1)sy^S}{\alpha sy^S - y^O} = \frac{\partial \overline{p}_i}{\partial y^O} < 0\,. \qquad (30)$$

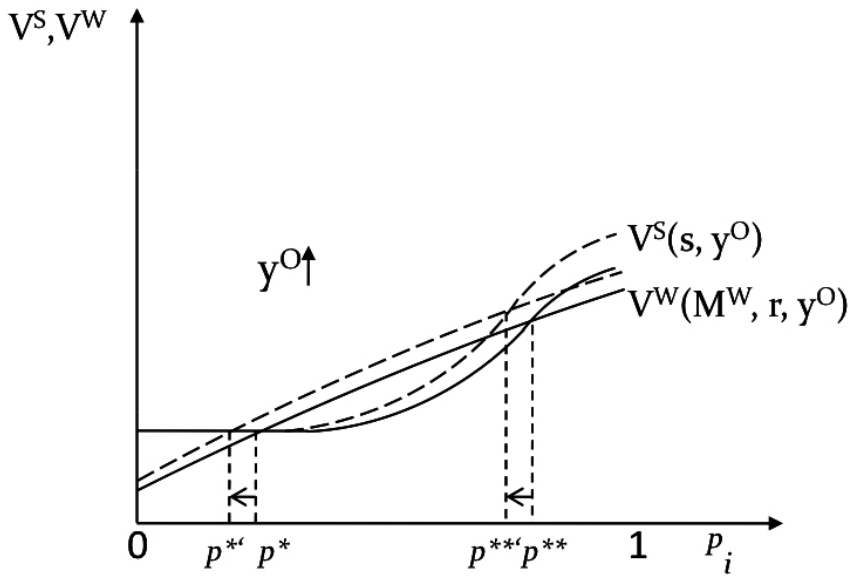
However, the consequences for the Western asylum country are less distinct. Taking into account eqs. (19), $\frac{\partial V^W}{\partial y^O} \geq 0$, and $\frac{\partial V^S}{\partial y^O} \geq 0$, the overall effect on the Western country is ambiguous:[18]

$$\frac{dp^{*(**)}}{dy^O} = \frac{\frac{\partial V^W}{\partial y^O} - \frac{\partial V^S}{\partial y^O}}{\frac{\partial V^S}{\partial p} - \frac{\partial V^W}{\partial p}} \gtreqless 0 \quad \text{for } p^* \text{ and } p^{**}. \qquad (31)$$

$$\text{and thus,} \quad N\frac{d(p^{**}-p^*)}{dy^O} \gtreqless 0. \qquad (32)$$

Figure 5 shows that both curves shift upwards so that the total effect on Western asylum migration becomes unclear. Aid transfers to the country of origin are unambiguously beneficial for the first asylum country, but not for the Western aid donor.

Figure 5 *Increasing Income Level in the Country of Origin*



A numerical simulation of the effect of such a policy, shown in Table 1, indicates that the asylum pressure exerted on the Western asylum country is generally lower

[18] See derivations in the Appendix.

the more liberal the first asylum country in its self-reliance policy. However, the effect of income-inducing aid $y^O(aid)$ on the *change* in the number of asylum-seeking individuals $N \cdot d(p^{**} - p^*)$ is not as clear. It is possible that for rather high values of the parameter s, i.e. when economic self-reliance is widely granted to refugees in the first asylum country, aid to the conflict-affected country of origin could even increase the number of individuals that choose the asylum option in the Western country. Why? Simply stated, the better the economic conditions in the country of origin, the lower the value of the permanent cross-border option relative to the asylum option in the Western country. This occurs when economic self-reliance in the first asylum country is generous (s is high) and therefore permanent cross-border migration is relatively extensive. This implies that also less persecuted people with medium to high levels of p choose, ceteris paribus, this option. However, for these less persecuted individuals, the risk of deportation (if they would choose the asylum option in the Western country instead) is associated with a lower disutility of living at home than to the highly persecuted individuals. Thus, aid to the country of origin reduces permanent migration to the first asylum country but increases asylum migration to the Western country, because the less persecuted individuals choose this option instead. Thus, aid to the country of origin is only effective for the Western country if the cross-border option is devaluated by a strict refugee policy of the first asylum country. This unclear aid impact might also contribute to the fact that Western donor countries are rather hesitant in transferring aid to countries of origin for migration-preventive purposes (Czaika & Mayer, 2008).

Table 1 *Simulation:*[19] *Aid Transfers and Refugee Migration*

Income in O	*Self-reliance in S*	*Asylum in W*	*Permanent in S*	*Temorary in S*
$y^O(aid)$	s	$p^{**}-p^*$	p^* (for $\tau(p^*)=1$)	p^* (for $\tau(p^*)<1$)
100	0.95	0.162	0.693	0
110	0.95	0.542	0.219	0
120	0.95	0.580	0	0.093
130	0.95	0.530	0	0.063
100	0.90	0.609	0.250	0
110	0.90	0.682	0.079	0
120	0.90	0.633	0	0.040
130	0.90	0.558	0	0.035
100	0.85	0.788	0.068	0
110	0.85	0.731	0	0.024
120	0.85	0.655	0	0.018
130	0.85	0.573	0	0.020

Self-financing Proactive Asylum Policy

In light of these potentially unwanted effects of proactive measures on refugee migration, we should explore whether Western asylum countries would have any incentive to invest in such proactive measures. Given the efficacy of aid as an instrument for increasing the respective income level of conflict-affected individuals living either permanently or temporarily in the country of origin or in the first asylum country, aid transfers require that there must be benefits, e.g. in terms of decreasing asylum costs, that need to spill over to the Western (aid-giving) asylum country. Thus, this normative postulate presumes double-effectiveness: aid is effective in increasing respective income, and consequently, this is effective in reducing asylum migration flows to the Western country.

[19] The simulation is run with the following parameter values: $\alpha = 0.8$; $r = 0.38$; $y^S = 100$; $y^W = 300$; $M^W = 70$.

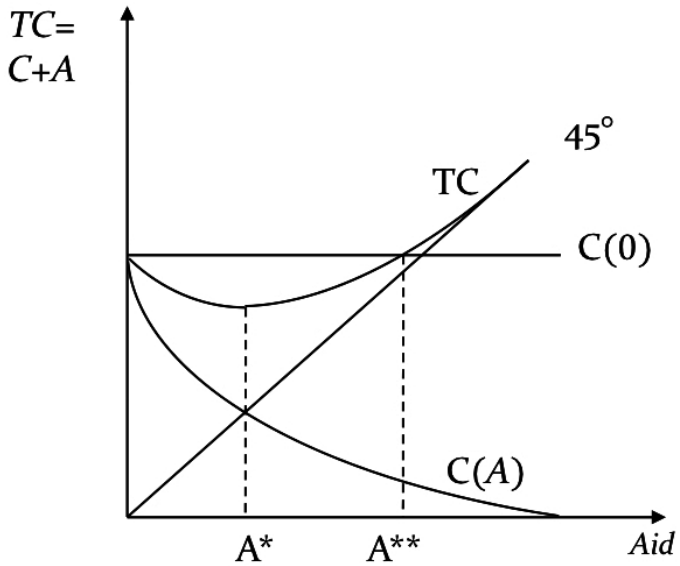
Then, a self-interested Western donor country allocates a positive amount of aid $A = A^S + A^O$ to the first asylum country (A^S) or to the country of origin (A^O) according to the following marginality condition:

$$\frac{\partial(p^{**} - p^*)}{\partial y^S} \cdot \frac{\partial y^S}{\partial A^S} = \frac{\partial(p^{**} - p^*)}{\partial y^O} \cdot \frac{\partial y^O}{\partial A^O} \leq 0. \qquad (33)$$

However, even if this necessary allocation condition holds, it is not sufficient. Aid is only transferred if the aid-induced reduction in asylum-related costs $\Delta C(A)$ is larger than the transferred amount of aid A.[20]

Figure 6 illustrates this relationship between the aid-induced reduction of asylum-related costs $C(A)$ and the transferred amount of aid. According to this, migration-preventive aid is cost-effective ('self-financing') if total costs $TC(A) = C(A) + A$ have a global minimum with a positive amount of aid, i.e. if $TC(A) \leq C(0)$. Consequently, if aid is migration-effective, aid for refugees might be a reasonable policy option for Western asylum countries.

Figure 6 *Self-financing Proactive Asylum Policy*



[20] These costs might capture all type of costs that the Western asylum country accrues for hosting asylum seekers (e.g. administration, maintenance, repatriation/deportation etc.).

4. CONCLUSION

This study contributes to the economic analysis of refugee migration. Utility-maximizing individuals that are in danger of their life, leave their home countries not primarily out of economic reasons but to avoid the disutility of persecution. However, refugees also respond to economic incentives. Equivalent economic conditions in a cross-the-border country or the expectation of asylum status in a Western country with better economic perspectives induce long-lasting absence from the country of origin. Consequently, refugee situations that are generated by conflict and human rights violations at home and are sustained in neighboring first asylum countries for a long period of time go in hand with a twofold asylum policy failure. First, two-sided restrictive asylum policies force refugees to stay in desperate encampment situations in remote areas. And second, a lack of proactive engagement of Western countries either in the country of origin or the first asylum country hinders the implementation of a durable solution in terms of voluntary repatriation and reintegration at home or of local integration abroad.

References

Brücker, H., & Schröder, P. J.H. (2006). International Migration with Heterogeneous Agents: Theory and Evidence. *DIW Discussion Paper No.* 2049.

Czaika, M., & Mayer, A. (2008). Refugee Movements and Aid Responsiveness of Bilateral Donors. *IEP working paper*, No. 6, University of Freiburg.

Djajic, S., & Milbourne, R. (1988). A general equilibrium model of guest-worker migration: The source-country perspective. *Journal of International Economics, 25*(3-4), 335–351

Dustmann, C. (2003). Return migration, wage differentials, and the optimal migration duration. *European Economic Review, 47*(2), 353–369

Harris, J. R., & Todaro, M. (1970). Migration, Unemployment and Development: A Two-Sector Analysis. *American Economic Review, 60*(1), 126–142

Loescher, G., & Milner, J. (2005). Protracted Refugee Situations: Domestic and international security implications. *Adelphi Papers, 45*(375).

Neumayer, E. (2004). Asylum Destination Choice: What makes some European Countries more attractive than others? *European Union Politics, 5*(2), 155–180

Neumayer, E. (2005). Asylum Recognition Rates in Western Europe - Their Determinants, Variation and Lack of Convergence. *Journal of Conflict Resolution, 49*(1), 43–66

Rogge, J. R. (1994). Repatriation of Refugees: Not So Simple 'Optimum' Solution. In T. Allen & H. Morsink (Eds.), *When Refugees Go Home. African Experiences* (pp. 14–49). Trenton, NJ: Africa World Press.

Sjaastadt, L. (1962). The Costs and Returns of Human Migration. *Journal of Political Economy, 70*(supplement), 80–93

Todaro, M. P. (1969). A Model for Labor Migration and Urban Unemployment in Less Developed Countries. *American Economic Review, 59*(1), 138–148

UNHCR. (2004). *Protracted Refugee Situations: UN Document EC/54/SC/CRP.14.* Geneva: UNHCR.

UNHCR. (2006a). *State of the World's Refugees: Human Displacement in the New Millennium.* Oxford: Oxford University Press.

UNHCR. (2006b). *Trends in Displacement, Protection and Solution: Statistical Yearbook.* Geneva: UNHCR.

Vink, M., & Meijerink, F. (2003). Asylum Applications and Recognition Rates in EU Member States 1982-2001: A Quantitative Analysis. *Journal of Refugee Studies, 16*(3), 297–315

APPENDIX

Table A *Model Derivations*

(1) $\frac{\partial V^W}{\partial p} = (1-\alpha)(1-r)(y^O - M^W)^{\alpha} \cdot \mathrm{p}^{-\alpha} > 0$

(2) $\frac{\partial^2 V^W}{\partial p^2} = -\alpha(1-\alpha)(1-r)(y^O - M^W)^{\alpha} \cdot \mathrm{p}^{-\alpha-1} < 0.$

(3) $p^* = \left(\frac{\left(y^O - M^W\right)^{-\alpha}(r\left(y^W - M^W\right)^{\alpha} - sy^S}{r-1}\right)^{\frac{1}{1-\alpha}}$ if $0 \le p^* \le \underline{p}.$

(4) $p^{**} = \left(\frac{(r\left(y^W - M^W\right)^{\alpha}}{[y^O]^{\alpha} - (1-r)\left(y^O - M^W\right)^{\alpha}}\right)^{\frac{1}{1-\alpha}}$ if $\overline{p} \le p^{**} \le 1.$

(5) $\frac{\partial V^S}{\partial s} = \begin{cases} \alpha y^S (sy^S)^{\alpha-1} \\ Z \cdot \frac{(1-\alpha)y^S(p+\alpha-1)y^O + \alpha p s y^S}{\left(y^O - sy^S\right)^2} \\ 0 \end{cases} \begin{matrix} > 0, \\ > 0, \\ = 0, \end{matrix}$ if $\begin{cases} 0 \le p_i \le \underline{p}. \\ \underline{p} < p_i < \overline{p}. \\ \overline{p} \le p_i \le 1. \end{cases}$

Proof: $\frac{\partial V^S(\underline{p})}{\partial s} = \alpha y^S (sy^S)^{\alpha-1} > 0$, and $\frac{\partial V^S(\overline{p})}{\partial s} = 0.$

(6) $\frac{\partial V^W}{\partial r} = (y^W - M^W)^{\alpha} - \mathrm{p}^{1-\alpha}(y^O - M^W)^{\alpha} > 0.$

(7) $\frac{\partial V^S}{\partial y^O} = \begin{cases} 0 \\ \mathrm{Z} \cdot \frac{(1-\alpha)\left(\alpha \mathrm{y^O} - \mathrm{sy^S}(1+\mathrm{p}(\alpha-1))\right)}{(\mathrm{y^O} - \mathrm{sy^S})^2} \\ \alpha \mathrm{p}^{1-\alpha}\left[\mathrm{y^O}\right]^{\alpha-1} \end{cases} \begin{matrix} = 0, \\ > 0, \\ > 0, \end{matrix}$ if $\begin{cases} 0 \le p_i \le \underline{p}. \\ \underline{p} < p_i < \overline{p}. \\ \overline{p} \le p_i \le 1. \end{cases}$

(8) $\frac{\partial V^W}{\partial y^O} = \alpha(1-r)\mathrm{p}^{1-\alpha}(y^O - M^W)^{\alpha-1} > 0.$

(9) $\frac{\partial V^W}{\partial r} = \left(\frac{r\left(y^W + y^O\right) + y^O - M^W}{(1-r)p + r}\right)^{\alpha-1} \cdot (y^W - y^O) > 0.$

(10) $\frac{\partial p^{**}}{\partial y^O} = -\frac{\alpha r(y^W - M^W)^{\alpha} \cdot \left(\frac{r(y^W - M^W)^{\alpha}}{[y^O]^{\alpha} + (r-1)(y^O - M^W)^{\alpha}}\right)^{\frac{\alpha}{1-\alpha}} \cdot \left([y^O]^{\alpha-1} + (r-1)\left(y^O - M^W\right)^{\alpha-1}\right)}{(1-\alpha) \cdot \left([y^O]^{\alpha} + (r-1)\left(y^O - M^W\right)^{\alpha}\right)^2} < 0.$

Proof: $[y^O]^{\alpha-1} + (r-1)(y^O - M^W)^{\alpha-1} > 0$, since $y^O - M^W \ge 0.$

(11) $\frac{\partial p^*}{\partial y^O} = -\frac{\alpha(y^O - M^W)^{-1-\alpha} \cdot \left(-[sy^S]^{\alpha} + r(y^W - M^W)^{\alpha}\right)\left(\frac{\left(y^O - M^W\right)^{-\alpha}\left(-[sy^S]^{\alpha}\right) + r(y^W - M^W)^{\alpha}}{(r-1)}\right)^{\frac{\alpha}{1-\alpha}}}{(1-\alpha) \cdot (r-1)} < 0.$