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Human trafficking and the effectiveness of asylum policies *

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Abstract

We investigate the effects of restrictive asylum policies on the number and group composition of asylum seekers. We model the choices of refugees and traffickers about whether to migrate and to apply for asylum. Counter-intuitively, restrictive asylum policies do not lead to a reduction in the inflow of refugees or to a better selection of asylum seekers. Instead, we show that under conditions outside the control of policy makers these policies can increase the number of asylum claims and the number of refugees working in slave-like conditions and prevent some of those most in need of protection from accessing it.

Key words: Asylum policy, Illegal immigration, Human trafficking
JEL classification: D78, F22, K49

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1 Introduction

Evidence of widespread trafficking of human beings in spite of the introduction of restrictive asylum policies indicates that there is a possible distortional element between asylum law and the incentives it gives to refugees. A priory, restrictive asylum laws should have a dissuading effect on refugees. In this paper we address the following question: are restrictive asylum policies effective, given human trafficking?

In order to provide an answer to this question, we need to determine a) the goals of asylum policy, b) the measures taken, and c) the environment that they are applied in. In this introduction, we review the contributions of the empirical literature on these three points, in view of formalizing their main features in section 2. The results will be discussed in section 3.

1.1 The goals of asylum policy

Asylum policies have two types of goals. On the one hand, governments continue to state the importance of providing asylum to human beings suffering from persecution. There is some proof that the willingness to take responsibility for refugees is more than lip service. The ratification of the 1951 Convention relating to the Status of Refugees and of the 1967 Protocol on the Status of Refugees, the fact that the right to asylum is part of the German constitution, as well as the history of hosting asylum seekers in Europe, are examples of the engagement of countries in favor of refugees.

On the other hand, it appears that the principal aim of current asylum laws is to reduce the number of asylum seekers.[1] Governments seem to want to prevent their countries receiving a disproportional share of asylum seekers, and to show that they are regaining control over immigration.[2] The aim of reducing the numbers of asylum seekers is also reflected in practice. Since the early 1990s, policy measures predominantly restrict all types of rights of asylum seekers (see figure 1.1).

It has been suggested that the reduction of the rights of asylum seekers has become a priority, and that the right to asylum applies only to those who manage to enter the system in spite of all the restrictive measures.[3] However, for the purpose of this paper, we can assume that both the reduction of the number of asylum seekers and humanitarian considerations are the main goals of the restrictive asylum policy measures.

[1] For example, in May 2002 Tony Blair announced that he would personally take control of asylum policies in order to reduce the number of claims in the UK. See Gibney (2004), p. 121.

[2] Gibney (2004), p. 220-221.

[3] *"(T)hat some lucky individuals manage to slip through the net of restrictionism and ultimately gain refugee status (or some other form of protection) is taken as evidence by government that the institution of asylum is alive and well"*. Gibney (2004), p. 229.

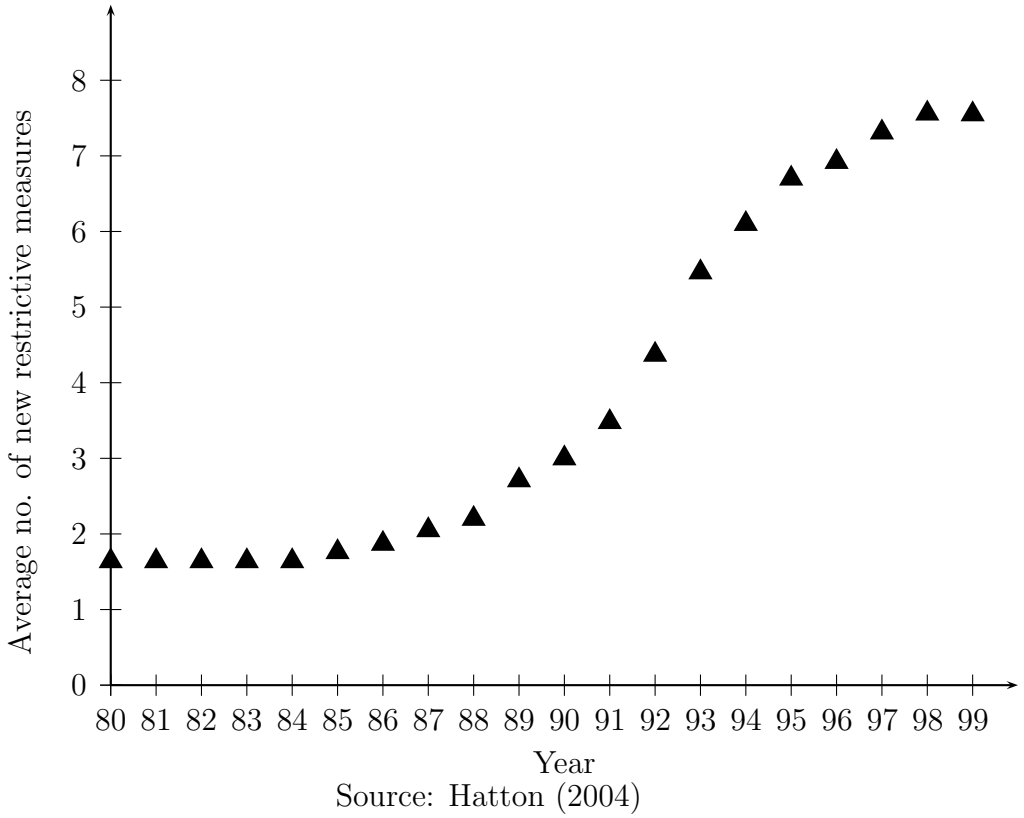

Figure 1: Average number of new restrictive asylum policies in the EU, 1980-1999

1.2 Asylum policy measures

Following Efionayi-Mäder *et al.* (2001) and Hatton (2004), we divide asylum policies into the four groups of measures: access restrictions, reforms of the asylum procedure, living conditions and expulsions. We discuss each of these types of measures in turn.

1.2.1 Access restrictions

The European Union offers few or no means for refugees to enter its territory: no "visa for refugees" exists in order to enter the territory and to claim asylum.[4] On the contrary, measures are introduced explicitly in order to prevent the arrival of these persons, thus eliminating the possibility of immigrating legally.[5] They include for example a restriction in the number of visas granted, an increase of border controls, carrier responsibility, and penalizing the transportation of all illegal immigrants to national territory. In the next section, these access restriction policy measures will be summarized by the parameter C.

What is the effect of policies restricting access found in the literature? Studying the convergence in time of the introduction of these measures and the decrease in the number of asylum claims, Efionayi-Mäder *et al.* (2001) find that restrictions of access are in fact often followed by a decrease in the number of asylum claims. Hatton (2004) shows empirically that this category of policy has the consequence to reduce a large part of asylum seeker flows. Zetter *et al.* (2003) arrive at similar conclusions.

However, according to Böcker and Havinga (1997), the consequences of this category of policy and the results of the studies quoted above are limited. The authors find that the introduction of supplementary visas and carrier sanctions increase the difficulty and the expense of the voyage to the destination country, but that the effect on the flow of asylum seekers is limited to the short term. Also, it has an impact on the number of persons only from certain countries of origin. Means of avoiding new obstacles to illegal immigration that are introduced with these policies are found rapidly, reducing their effect. In fact, a large majority of asylum seekers enter the territory illegally.[6] In order to do this, refugees are more and more forced to use human smugglers, as we will see below.

[4]There exists a programme that allows recognized refugees who apply for asylum in a UNHCR refugee camp outside Europe to enter a European country. However, fearing for their security in these camps, few refugees choose this option. The number of people admitted to Europe by these means is derisory (Middleton, 2005, p. 6). For example, in 2001 Germany, France and Great Britain hosted 317 persons sent through the program, while they were faced with 227 575 asylum claims from persons who had entered the countries illegally.

[5]See Morrisson and Crosland (2000), p. 27-28 and Brolan (2003), p. 574.

[6]Böcker and Havinga (1997), p. 15-16.

1.2.2 Reforms of the asylum procedure

One can make out two main tendencies for asylum procedure policies: the extension of the types of reasons for exclusion from the procedure, and the multiplication of complementary statuses to the Geneva Convention status.

All EU member countries established lists of "safe countries of origin" and of "safe countries of transit"[7]. Further criteria for accessing the asylum procedure were added: documents must be complete and correct, and "manifestly unfounded claims" were introduced as a new category. Accelerated and specific procedures are created with limited appeal rights, for example airport procedures. A number of bi- and multilateral treaties of processing of asylum seekers were signed, making it possible to return refugees to countries outside the European Union.

With the war in Yugoslavia a wave of adoption of temporary protection statuses started. With the non-eligibility of certain categories of refugees for the recognized refugee status, the recognition rate of asylum claims has decreased dramatically.

In his statistical study, Hatton (2004) finds that this type of policy does not have a significant effect on the number of asylum seekers. This *a priori* surprising result is confirmed by the work of Böcker and Havinga (1997), who find that the lists of safe countries are avoided by refugees simply by not disclosing their countries of origin and transit to the authorities. However, the recognition rates are shown to have an impact on the destination country choice of refugees for certain countries of origin and destination.

In the formalization of the following section, the asylum law procedure is reflected in the probability that an asylum claim is accepted. It is composed of the parameter ρ, multiplied by the individual history, or "profile" (θ_i). For example, excluding certain categories of asylum seekers from asylum eligibility would be interpreted as a "toughening" of the recognition policy and reduce ρ. As a consequence, one would expect the probability of recognition to decrease. Also, for a given acceptance policy ρ, a refugee who can prove that he[8] fulfills the criteria for a refugee status (see below) has a greater probability of being granted asylum than a person who does not fulfill some of the criteria.

1.2.3 Living conditions

From the mid-1990s, internal controls and limitations of asylum seekers' social rights where multiplied. For example, there was an increased effort to detect "disappeared" asylum seekers and to prevent abuse of the asylum system. This category of policies implies to penalize lack of cooperation

[7]Countries are considered "safe" depending on the number of asylum seekers originating from them, the human rights record and the democratic character of their institutions. The criteria for including a country in the list of safe countries are vague, and there is frequent disagreement about which countries to include.

[8]The majority of refugees are male. For example, in Germany in 2006, 60,7% of asylum claimants were male (BAMF, 2007, p.24). For simplicity, we will use the pronoun 'he' throughout this paper.

with the authorities and antisocial behavior. Benefit payments were reduced, centralized housing was made compulsory and mobility was limited. Asylum seeker benefits were taken out of the social benefits systems and frequently paid in kind or in vouchers. Dispersion and detention policies were introduced and paid work forbidden for many categories of asylum seekers.

These measures reduce the monetary gains to a strict minimum. According to the neoclassical migration theory[9], that emphasizes the role of expected income in the destination country, they should reduce therefore the attractive force of a country. A reduction in social aids aims also to reduce the expenses of asylum seekers to the state.

Hatton (2004) shows that measures reducing living conditions for asylum seekers, introduced in great number in the 1990s, do indeed have a significant impact on the number of asylum claims. However, the qualitative studies show the necessity of nuancing this result: while certain groups of refugees appreciate housing, others prefer to minimize government intervention in their lives. Most persons interviewed by Böcker and Havinga (1997) consider it highly undesirable to depend on state aid in the long term. Nonetheless, in the short term, the living conditions provided by the host country are deemed important.

In the next section, we introduce a parameter β for asylum seeker benefits, which is designed to reflect the living conditions of refugees. We assume that higher benefits β generally increase the refugees' utility.

1.2.4 Expulsions

Hosting persons in need of aid is generally seen as acceptable on the condition that those who are seen as abusing of the system are expelled.[10] Considerable efforts are made to give asylum seekers incentives to voluntarily return to their home countries. Among these are material incentives and professional education programs, but also diplomatic advances which make it easier to procure the necessary documents. Failed asylum seekers that do not return voluntarily can be removed or not.[11] Over the last three decades, the number of expulsions was multiplied in several countries.

The rise in rates of expulsion aims to increase the risk for refugees of finding themselves back at the starting point of their journey. More seriously, they risk being exposed to the authorities in

[9]See Borjas (1994), Sjaastad (1962), Todaro (1969), Harris and Todaro (1970). The existing microeconomic models of individual choice are based around the concepts of investment and human capital, where decisions of rational individuals depend on a cost-benefit analysis: they decide to emigrate when the expected net gain from doing so is positive. Migrants must make investments in terms of time and money in order to be able to work in a country where they can be more productive and better paid. Given that many asylum seekers are prohibited from working legally, it becomes clear that the models of existing economic literature are not directly adaptable to the case of asylum immigration.

[10]For an example, see Home Office (2005), p. 8.

[11]In the UK, for example, only 43% of rejected asylum seekers were removed in 2003. Calculated with figures from Home Office (2003).

their countries of origin that are responsible for their persecution, or that are at least not capable of protecting them from persecution.

In the literature, the effect of this type of policy was not tested separately in a regression. The qualitative study by Böcker and Havinga (1997) insists on the importance to refugees of being able to stay in the country of refuge, whatever their status. A high rate of expulsion threatens this decision factor.

In what follows, the probability of expulsion will be noted π, and it is assumed to reduce asylum seekers' utility. Furthermore, we hold that the probability of being expelled by the state is higher for asylum seekers than for illegal immigrants. The estimations of the rate of removals confirm this hypothesis.[12] For simplicity, we set the probability of being expelled to zero for illegal immigrants. We assume that they are not discovered.

This review of the literature shows that according to quantitative and qualitative studies the different asylum policy measures do not always have the impact that they were designed for. Predicting the consequences of measures is shown as extremely complex, because of significant variations of behavior following the countries of origin and destination, and the short and the long term.

It is nonetheless surprising that the regressions find that measures impacting procedures and living conditions have no impact on asylum seekers' choices. It can be considered rational for them to react to changes in their rights.

In what follows, we will show that the key role explaining this behavior is held by the human smugglers, whose indirect influence makes the interpretation of the available data much more difficult. With asylum laws becoming increasingly restrictive, choosing illegality instead of applying for asylum becomes an option for refugees that is not reflected in the statistics.

1.3 Human trafficking

Human smuggling or trafficking is an important feature of refugee migration. According to an Oxfam (2005) estimation, 90% of asylum claimants enter Europe illegally. Most of them will have used the services of traffickers or human smugglers who organize the trip. The German authorities estimate that approximately 50% of asylum seekers were trafficked in 1997. In the Netherlands, figures reach 60-70%.[13] According to a report published by the Dutch ministry for Justice, all refugees without exception use the services of smugglers at at least one stage of their migration.[14] In 1993, around 300 000 persons entered the European Union illegally, often with the help of traffickers.

[12]For example, in the UK, 4.7% of illegal immigrants caught by the police were expelled in 2002, while 11% of Iraqis and 55% of Yugoslavs whose asylum claims had been rejected were removed. Source: Home Office (2003) and Home Office (2004).

[13]Morrisson and Crosland (2002), p. 16.

[14]Study quoted in Efionayi-Mäder *et al.* (2001), p. 145.

These numbers must be interpreted with precaution because of the double problem of a lack of data on trafficking and the lack of statistical links between asylum claims statistics and those of trafficked persons. There is however reason to believe in a strong link between human trafficking and refugees. Trafficked persons indeed come mostly from refugee generating source countries.[15]

The dangers of human smuggling are well known. An example among many is the death of 58 Chinese refugees hidden in the back of a lorry transporting tomatoes in the British port of Dover in June 2000. The hundreds of bodies found on the beaches of the Mediterranean each year clearly illustrate the real dangers of this form of migration. However, by definition refugees also face considerable danger if they do not migrate. Therefore, we will abstract from the dangers of the migration in our model.

What is human trafficking and how does it work? We will clarify these questions before we formalize the main characteristics of trafficking in the next section.

1.3.1 Definition of human trafficking

There is no international consensus on the distinction between smuggling and trafficking of human beings. In addition to making persons enter a territory illegally (smuggling), trafficking includes fraudulent proceedings and/or kidnapping, exploitation of people against their will. According to this definition, a person seeking out smuggling services in full knowledge of what this implies is not trafficked. However, we will see that refugee migration shows that there are cases in which a person can have consented to the terms of migration, but still be exploited in the destination country. A report published by the European Commission[16] insists on the criterion of the existence of victims of forced labor for the definition of human trafficking. According to this definition, using smugglers can well imply the trafficking of persons, in spite of the existence of a contract. Since both definitions are used and the distinction of trafficking and smuggling is relatively arbitrary in the cases that refugees find themselves in we will use the terminology indiscriminately. We will also use the more neutral term of travel intermediary.

Note that while trafficking or smuggling persons is illegal, international customary law stipulates that no refugee may be punished for entering a country illegally. The principle of refoulment in the Geneva Convention prohibits states from deporting a refugee towards a state where he might be threatened. Thus, refugees do not commit an illegal act by using smugglers.[17]

[15] Morrisson and Crosland (2002), p. 16.

[16] See European Commission (2004), p. 53.

[17] We do not model the risks faced by traffickers by committing an illegal action. It can be argued that these risks are very low.

1.3.2 Trafficking Services

What do traffickers do? The trafficking of human beings has become an important component of transnational organized crime, comparable and often linked to the networks trafficking drugs and arms.[18] The illegal services on offer include one or several of the following:[19]

1. Facilitating illegal exit from a country, transit and or illegal entry into a different country. The methods used include

   - Clandestine crossing of borders, on foot, with a guide;
   - Crossing of borders by non-official means of transport, like private cars, boats, hiding in boats, trains or lorries;
   - Crossing of borders by official means of transport;
   - Provision of fraudulent identity or travel documents, stolen or altered;

2. Provision of information on border and coastal controls, on asylum and immigration procedures, including training migrants to deceive immigration and judicial authorities;

3. Provision of housing in countries of origin, transit and destination, and/or work in the country of destination.

In our model, we do not focus on these different functions, but simply assume that traffickers make migration possible for refugees, and that migration is impossible to them without the help of traffickers.

1.3.3 Financing of trafficking

Refugees can be poor. Nonetheless, trafficking takes place. In order to finance the migration and to pay the trafficker, it is usual to use debt contracts that imply a repayment of debt in the country of destination.[20] A refugee fleeing Iraq for the European Union in 2002 had to pay between 3.000 and 40.000 euros.[21] Such sums are impossibly high for many persons requiring the service. Migrants and their families have to sell their property and borrow money. Banking services are often not available for persons who wish to flee a country.

Thus, smugglers must step in to finance the migration. They encourage migrants to defer payment to when they arrive in the destination country. Only a small sum (generally between 5% and 20% of the total price) is paid before departure, noted share ε of the total price ($\bar{\Phi}$) in the

[18] Morrisson and Crosland (2000), p. 42.
[19] Schloenhardt (2003), p. 19.
[20] Brolan (2003), p. 578-579, Friebel and Guriev (2006), p. 8, Ghosh (1998).
[21] See Jandl (2003) and Ghosh (1998), p. 31.

model. The choice of destination is thus limited by the amount that a refugee can pay *ex ante*.[22] The servicing of the debt, i.e. the payment of the remaining share of the price, $(1-\varepsilon)\bar{\Phi}$, is ensured in forced labor. Migrants are employed in prostitution, but also in sweat shops and in domestic labor.[23]

It is very difficult for refugees to escape the smuggler's control. Methods consisting of threats, locking up and taking away of papers make escaping forced labor a difficult task. There exist state programs of protection of trafficked persons in host countries. In exchange for information about the trafficking network, victims are hidden.[24] We assume that state protection is the only way to escape traffickers.

Studies[25] show that a large number of trafficking organizations operate in the same countries of origin. We will therefore assume that traffickers work in a competitive environment. We assume that refugees have perfect information on the trafficker's practices and on asylum policies. Indeed, traffickers' reputations are made by the persons who were trafficked by them in the past. Refugees know the reputation and only choose a trafficker who will let them free when the debt is paid back. In the destination countries, other refugees and judicial advisors provide them with the necessary information about asylum practices and policies for an estimation of the probability of success of an asylum claim.[26] We assume that traffickers and refugees are risk neutral.[27]

Traffickers are concerned with their reputation and will liberate trafficked persons once the debt is paid back. Friebel and Guriev (2006) quote a study on Chinese on the Fujian province that states that debt servicing takes between six months and four years, and 26 months on average. In other cases, the extent of the debt and the vulnerability of trafficked persons due to their illegal status lend traffickers a power of extortion that can exceed the contract.

Not all refugees are poor. Refugee crises are in fact of different types that do not allow any generalization across countries and time periods about the correlation between refugees' resources and their profiles. In certain situations, poorer groups are persecuted while in others, richer parts

[22] A testimony providing an example for this is provided in Middleton (2005), p. 30.

[23] Schloenhardt (1999).

[24] For an example, see the UK program of protection of the victims of trafficking, including safe housing. It is used by asylum seekers: for example, 220 Eritreans claimed asylum in summer 2002 in order to escape domestic servitude. See Crime Reduction Toolkit of the British government,
<http://www.crimereduction.gov.uk/toolkits/tp0604.htm>

[25] See Middleton (2005), p. 31, IOM (2004), p. 105.

[26] If knowledge on asylum law is imperfect, as the literature suggests, then the impact of the asylum policy variables is weakened or increased, without altering the results. In this case, the policy variables must be interpreted as the *perception* of asylum. This does not change the model.

[27] One could argue that refugees are risk lovers because they are prepared to face the risks of the migration. On the other hand, they could be risk averse because they flee risks in their country in order to live in security. It is not possible *a priori* to judge which, if any, of these arguments is closest to reality. Both risk aversion and risk loving utility functions can be introduced into the model through the weighting of the rate of expulsion without fundamentally changing the results.

of the population or ethnic groups of all incomes are under attack. Those who are not poor can finance their migration without having to enter into the debt-labor contract.

In the following section, we construct a model based on the characteristics of trafficking-based asylum migration in order to study the effects of the four different types of policy listed above. We will subsequently discuss these effects in the light of the aims of governments, i.e. the reduction of refugee flows and the protection of victims of persecution.

2 Model

2.1 Model setup

There are three players, R and T, who are respectively the refugee and the travel intermediary, or trafficker, and the state. The trafficker and the refugee take part in a four stage game (see Figure 2). In the first period, the intermediary decides whether he wants to offer the refugee a contract or not. The contract is standard, with a fixed prepayment. If he decides to accept the contract, the refugee migrates to the destination country.

Here he can choose between applying for asylum and staying in illegality. In the case of the asylum application, the host country accepts the claim with a probability of $\rho\theta_i$ with $\rho\theta_i \in [0, 1]$, ρ the policy amd θ_i the individual's profile. If he is refused, the refugee is expelled with the probability Π, again a policy variable. The strategic interaction of the players is limited to the first two periods. State action is based entirely on probabilities.

The contract that the intermediary offers to the refugee is comprised of two stages. First, the refugee has to pay a fixed part of the total price of the intermediary's services. The intermediary then makes it possible for him to migrate. On arrival in the country of destination, the refugee must pay back his debt to the intermediary by working for him in illegal conditions. Then the intermediary lets him free. However, the refugee can decide to renege on the debt and to apply for asylum instead. The host country government protects asylum seekers from the pressure of intermediaries, independently of the asylum status of the individual. Even if the asylum claim is rejected and the refugee is removed, the intermediary has no means to reclaim the debt, since the only way of paying it is by working in the intermediary's sweatshops in the country of destination; however, punishment for reneging on the debt contract is not excluded. For simplicity, we assume that the debt contract is applied perfectly when the refugee does not apply for asylum, and that the refugee is totally protected from paying back the debt when he does.

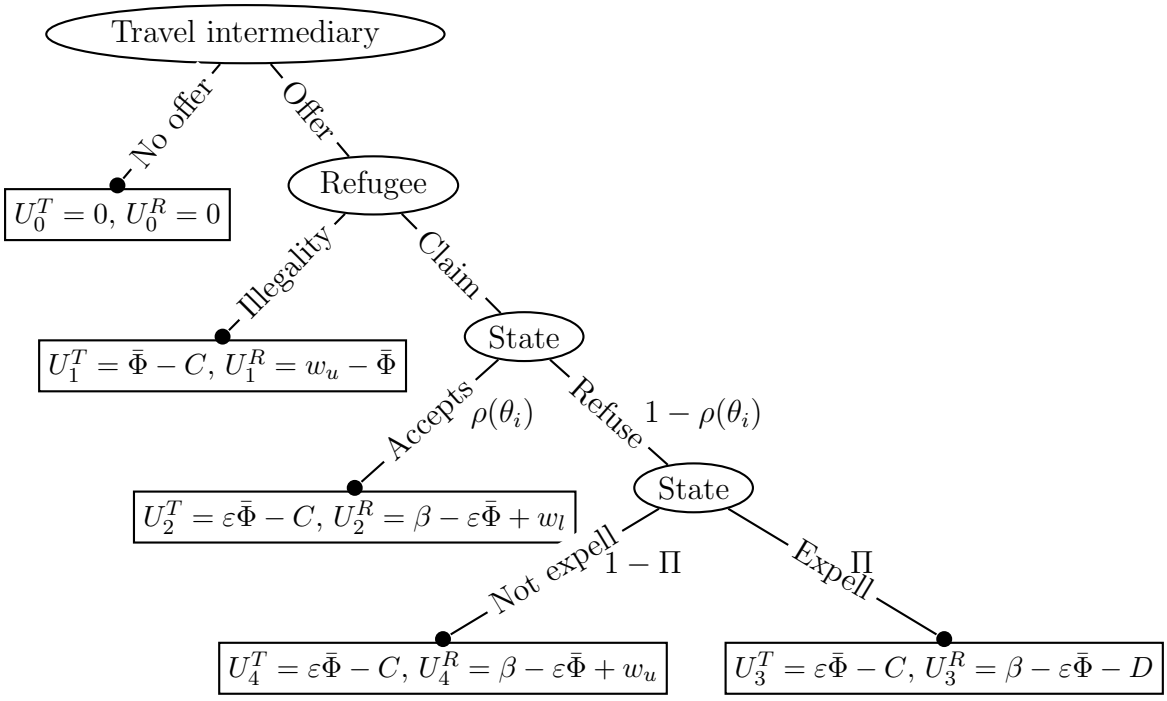

Figure 2: Game tree

If no contract is offered, payoffs are equal to zero for both players.[28]

$$U_0^{T,R} \quad = \quad 0 \tag{1}$$

If a contract is agreed upon, the intermediary charges a price $\bar{\Phi}$ for his services in two successive steps. $\bar{\Phi}$ is the threshold price below which the trafficker offers no contract (see equation (3)) The refugee makes a downpayment of a fixed percentage ε of the total price. The rest of the money, i.e. $(1-\varepsilon)\bar{\Phi}$ is owed to the trafficker. The costs of transporting the refugee are denoted C. They depend on the policies barring access to the destination country and are paid by the intermediary. In all cases, if a contract is established, the intermediary's payoff is $\varepsilon\bar{\Phi} - C$.

[28]For the following three reasons, the refugee has no outside options. First, this assumption reflects the compulsory nature of the refugee's migration. The lack of choice about whether to emigrate is implicit in the definition of the term refugee. Second, calculating the exterior options would entail important complications. It would be necessary to evaluate the loss associated with imprisonment, torture and death and to compare it to the gain derived from staying in one's known environment and near one's loved ones. (For a review of the law and economics literature on the value of life and on the quality of life, see Viscusi (2005). This literature does not apply here, because it concerns itself only with small risks. Per definition, refugees are confronted with high risks.) Such calculations would be based on strong hypotheses. Finally, the standard hypothesis of outside options normalized to zero for the refugee simplifies the result without biasing it.

Two possible outcomes are important for the intermediary. If the refugee works for him illegally and pays off his debt $(1-\varepsilon)\bar{\Phi}$, the intermediary's payoff is the total price $\bar{\Phi}$ paid by the refugee, minus the costs of the migration C.

$$U_1^T = \bar{\Phi} - C.$$

Alternatively, the refugee files an asylum claim and reneges on his debt. The intermediary's gain is limited to the initial payment $\varepsilon\bar{\Phi}$, while he faces the same cost C for the migration.

$$U_{2,3,4}^T = \varepsilon\bar{\Phi} - C.$$

The trafficker's expected utility from a transaction depends on the share of refugees who pay back the money owed, and on those who do not. $f(\theta)$ is the distribution of profiles in the population of refugees. The probability that the debt $(1-\varepsilon)\bar{\Phi}$ is paid back is thus $F\left(\bar{\theta}\right)$ i.e. the probability that a refugee has a profile θ_i inferior to the threshold $\bar{\theta}$ from which he will apply for asylum, with

$$F\left(\bar{\theta}\right) = \int_0^{\bar{\theta}} f(\theta)d\theta.$$

The probability that the refugee does not pay back the debt is thus $1-F(\bar{\theta})$, which is the probability that a refugee's profile is above the threshold profile for claiming asylum. The trafficker's expected utility weights the outcomes with these probabilities. We find:

$$EU^T = F\left(\bar{\theta}\right)\left(\bar{\Phi} - C\right) + \left(1 - F\left(\bar{\theta}\right)\right)\left(\varepsilon\bar{\Phi} - C\right)$$

A refugee who stays in illegality earns a wage w_u and must pay the entire price $\bar{\Phi}$ of the migration. His total payoff is

$$U_1^R = w_u - \bar{\Phi}.$$

If he claims asylum, he receives a fixed amount of asylum seeker benefits β, which depend on asylum policies. β is an asylum policy variable. It is a benefit paid during the asylum procedure, independently of its result. Recognized refugees have the right to work or to receive higher benefits. His other gains and losses depend on state decisions concerning his asylum claim and on expulsion. If the state recognizes the refugee status, the refugee can find work in the legal sector, earning a wage $w_l = lw_u$ with $l > 1$ the increase in income gained from not working illegally. The probability of this outcome is $\rho\theta_i$ and the payoff for the refugee is

$$U_2^R = \beta - \varepsilon\bar{\Phi} + w_l.$$

Alternatively, the asylum claim is rejected. Remember that this decision does not automatically imply expulsion; the removal rate Π depends on asylum policy. In the case of expulsion, the refugee suffers the loss of D, variable composed of his exposure to possible persecution by the original

persecuting party and the intermediary, and of the disappointment at the failed migration.[29] The refugee's utility amounts to

$$U_3^R = \beta - \varepsilon\bar{\Phi} - D.$$

If he is not expelled, he works in the illegal sector. His payoff is

$$U_4^R = \beta - \varepsilon\bar{\Phi} + w_u.$$

When applying for asylum, the refugee's expected payoff is thus:

$$EU^R = \rho\theta_i(\beta + w_l) - (1 - \rho\theta_i)[\Pi(\beta - D) + (1 - \Pi)(\beta + w_u)] - \varepsilon\bar{\Phi}.$$

2.2 Equilibria

Backward induction determines the conditions under which the refugee will apply for asylum instead of working to pay off his debt, and the conditions under which the trafficker will offer a contract to the refugee.

In the second period, the refugee compares his utility from staying illegal U_1^R to his expected utility from applying for asylum EU^R.

$$\begin{aligned} EU^R &= U_1^R \\ \Rightarrow \quad \rho\theta_i(\beta + w_l) + (1 - \rho\theta_i)[\pi(\beta - D) + (1 - \pi)(\beta + w_u)] - \varepsilon\bar{\Phi} &= w_u - \bar{\Phi} \end{aligned}$$

The threshold profile above which it is rational to apply for asylum rather than to stay illegal is:

$$\bar{\theta} = \frac{-\beta - (1 - \varepsilon)\bar{\Phi} + \pi D + w_u(1 + l(\Pi - 1))}{\rho(\pi D + l(\Pi - 2)w_u)} \tag{2}$$

with $\bar{\theta}$ such that $\theta_i > \bar{\theta}$: the refugee claims asylum, and $\theta_i < \bar{\theta}$: he stays illegally. Equation (2) shows that the level of the threshold $\bar{\theta}$ depends on the expected income from the legal and illegal sectors (w_u and w_l), the price of being trafficked $\bar{\Phi}$, the loss from expulsion D, and on the three types of asylum policy: the probability of removal Π, asylum seeker's benefits β, and the function linking the probability of a claim being accepted to the individual profile $\rho\theta_i$. We will see that the the marginal cost of transporting a refugee imposed by access policies, noted C, influences $\bar{\theta}$ indirectly via the price $\bar{\Phi}$.

In the first period, the intermediary only offers a contract to the refugee if his expected utility from the contract EU^T is at least equal to zero, that is, at least as high as his utility U_0^T in the absence of a contract.

[29] We assume D to be high, i.e. $D > \frac{l(2-\Pi)w_u}{\Pi}$.

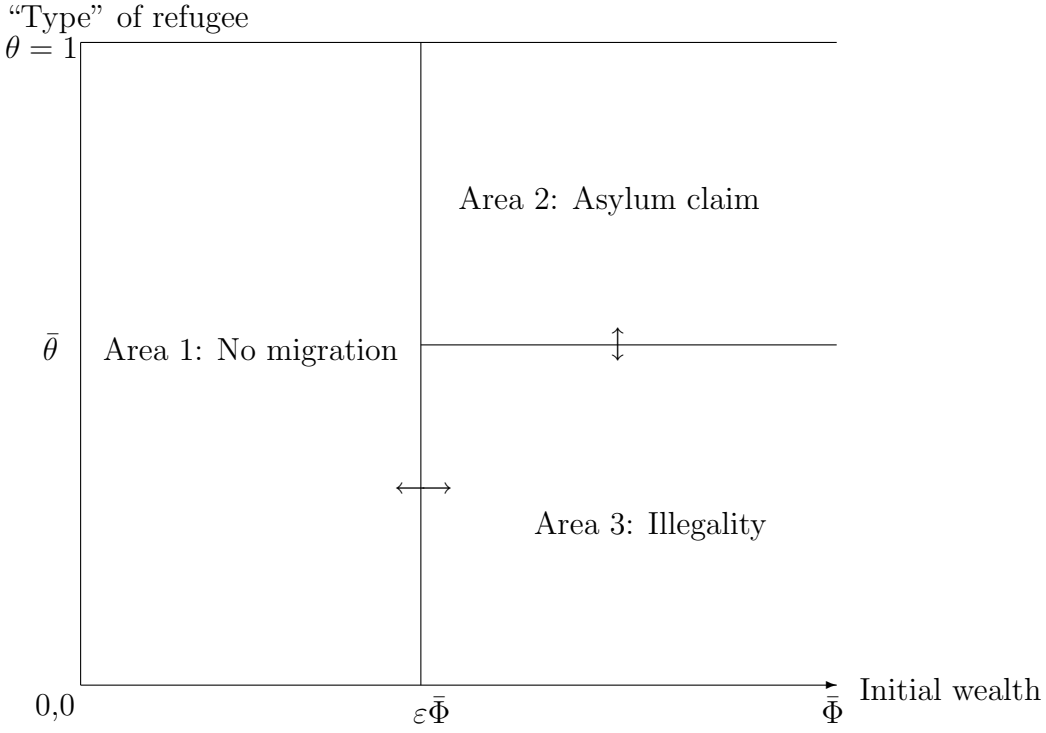

Figure 3: Distribution of choice of refugees

$$EU^T \quad \geq \quad U^T \Rightarrow F\left(\bar{\theta}\right)(\Phi - C) + \left(1 - F\left(\bar{\theta}\right)\right)(\varepsilon\Phi - C) \geq 0$$

Including the trafficker's profit constraint, we find the following threshold price below which the trafficker will offer no contract: :

$$\bar{\Phi} = \frac{C}{(1-\varepsilon)\,F\left(\bar{\theta}\right) + \varepsilon} \tag{3}$$

$\bar{\Phi}$ is threshold price such that if $\Phi < \bar{\Phi}$: the trafficker offers no contract, and if $\Phi \geq \bar{\Phi}$: the trafficker offers a contract to the refugee. Only refugees who are able to make the downpayment $\varepsilon\bar{\Phi}$ can undertake the migration.

The thresholds of profiles from which refugees apply for asylum $\left(\bar{\theta}\right)$ and from which traffickers accept to transport refugees $\left(\varepsilon\bar{\Phi}\right)$ are presented in Figure 3. The wealth of the refugees is plotted on the horizontal axis. All refugees whose initial wealth exceeds $\varepsilon\bar{\Phi}$ can migrate. All those who cannot make this downpayment are excluded from migration.

The vertical axis plots the types of refugees. Of those who can migrate, only individual types $\theta_i > \bar{\theta}$ claim asylum. Those whose type is inferior to the threshold type $\bar{\theta}$ opt for illegality instead of asylum. The arrows show the impact of the movement of the thresholds for wealth and profiles on the distribution of migrants.

3 Discussion

3.1 The effects of restrictive asylum policy measures on refugee choices and option

What is the effect of the different types of policies on the thresholds? The asylum policies on removal, benefits and recognition rates have a direct effect on the decision of a refugee to apply for asylum or to stay illegally. They also have an indirect effect on price fixed by the trafficker, because they influence the probability that the price will actually be paid.

Access policies, on the other hand, have a direct effect on the threshold price and on the amount of the first payment, and an indirect effect on the choice of whether to apply for asylum. Access restrictions increase the costs to the trafficker and they increase the debt of the trafficked. As a consequence, claiming asylum becomes more interesting because a higher debt service is avoided. There thus exists an inverse relationship between the threshold levels $\varepsilon\bar{\Phi}$ and $\bar{\theta}$: the more the government tries to reduce access, the higher the probability that a person in the country will apply for asylum, and vice versa.

	Asylum policies			
	$\Delta C > 0$	$\Delta\beta < 0$	$\Delta\pi > 0$	$\Delta\rho < 0$
ΔNo migration	> 0	< 0	$\lessgtr 0$	< 0
ΔIllegality	< 0	> 0	$\lessgtr 0$	> 0
ΔAsylum claims	$\lessgtr 0$	$\lessgtr 0$	$\lessgtr 0$	$\lessgtr 0$

Table 1: Impact of asylum policy variables on outcome probabilities

Table 1 summarizes the signs of the impacts of the modification (toughening) of asylum policy variables on the probability of refugees to find themselves in one of the three outcome situations no migration, illegality, asylum claim (read horizontally). Thus, an increase in access costs leads to a larger share of refugees (or a larger probability for one refugee) for whom migration and flight are impossible. It reduces the share of persons in illegality and has an indefinite effect on the share of asylum seekers. Reductions in social benefits β and in the recognition rate ρ have the opposite effects, whereas the effects of removal policies are indeterminate. The sign of the impact of asylum policies on the share of asylum seekers cannot be determined *a priori* in for any of the measures.

3.1.1 Effects on the possibility to flee

The policies aiming to prevent access to the territory increase the marginal cost of immigration, and they consequently increase the price paid by the refugee, $\bar{\Phi}$. The more restrictive policies of this type are, the more refugees cannot pay the initial amount for migration $\varepsilon\bar{\Phi}$. The other types of

restrictive asylum policies, by making asylum claims less attractive, decrease the risk that a refugee will default on the debt payment. Thus, the price of migration sinks, making migration possible for more persons. An increase in earnings in the illegal sector or a decrease in earnings in the legal sector have the same effect. They make debt servicing relatively more attractive and they thus increase the number of persons that can be transported.

3.1.2 Effects on illegality

A refugee who has sufficient ressources to pay $\varepsilon\bar{\Phi}$ and whose profile θ_i is too low to make him prefer an asylum claim ($\theta_i < \bar{\theta}$) finds himself in a situation of forced labor while paying back the debt. The probability of finding oneself in this situation is increased by all restrictive asylum measures except those toughening removal access. The latter policy decreases the number of trafficked persons, while the other types of policies render the situation of illegality more attractive relative to claiming asylum. Higher earnings in the illegal sector, lower legal earnings and a decrease in the debt $(1 - e)$ have the same effect. An increase in the probability of being expulsed can either increase or decrease the probability of finding oneself in the situations of servitude or of impossibility of fleeing the country depending on the values of w_u and of D.

3.1.3 Effects on asylum claims

Finally, the consequences on asylum claims, the specific aim of these policies, are undetermined. Asylum claimants are those who can make the initial payment and whose profile is superior to the threshold ($\theta_i > \bar{\theta}$). The dissuasive effect of the policies and of the other variables on the refugees is undermined by the lower risk faced by the traffickers, who traffic more persons as a consequence. Without further definition of the profile θ_i and of access to resources to make the initial payment it is impossible to predict which of the two effects is more important.

3.2 The effectiveness of restrictive asylum policy measures

3.2.1 Restrictive policies and the aim of reducing the inflow of refugees

Do restrictive measures lead to a reduction of the inflow of refugees? We have found that only one type of policy measure has this effect: access control increases the share of persons who do not migrate. Tougher acceptance and benefits policies here have the opposite effect. They make it less attractive for migrants to renege on their debt contract, which has the effect that traffickers charge a lower price to make migration possible. This, in turn, makes it possible for more refugees to migrate. Expulsion policies have contradictory effects for which it is not possible to make an *a priori* prediction on whether they reduce the inflow of refugees.

Moreover, the effects on the number of inflowing migrants do not translate directly into the same effects for asylum applications. Indeed, we have shown that the effects of all types of asylum policies

on asylum applications is *a priori* uncertain due to contradictory influences. As a consequence, policy makers cannot influence whether their policies will increase or decrease the number of asylum seekers. Instead, the effects of their policies will depend on exogenous factors like the distribution of profiles and wealth in the migrant population. Thus, restrictive asylum policies to not reliably achieve the end of reducing the inflow of migrants.

3.2.2 Restrictive policies and humanitarian considerations

Do restrictive asylum policies achieve other, humanitarian goals? Do they ensure protection to a greater number of people, or better protection for immigrants and asylum seekers?

None of this is the case. While some measures of asylum policies do increase the number of persons who can migrate, none of these reduces the number of persons in illegality. The increase in migration does therefore not lead to an increase in protection; rather, it leads to an increase in the number of persons who as illegal residents are excluded from state protection. Also, the increase in total migration does not affect especially bona fide migrants. Instead, wealth is still the factor determining whether a refugee can migrate or not.

The toughening of asylum policies also fails to achieve the goal of providing better protection to those who do apply for asylum. We have seen that it does not achieve the reduction of asylum applications that would have been a precondition to improving applicants' protection. What is more, the living conditions as well as the chance for acceptance and the probability of expulsion of those who apply are worsened.

4 Conclusion

In this paper, we have studied whether in a world in which trafficking is a determinant feature of migration the toughening of asylum policy measures leads to the proclaimed goals of policy makers, i.e. humanitarian goals and the reduction of immigration and asylum applications. We have found that*a priori*, asylum policy measures to not lead to the intended outcomes. While their outcome is uncertain, especially regarding asylum claims, they can also lead to to unwelcome effects, i.e. an increase in migration and in asylum claims, and a reduction in the protection even of *bona fide* refugees.

Our model also shows why empirical studies come to contradictory or non-significant results concerning the impact of the different types of asylum policies on migration and asylum flows. There are indeed factors at work that pull in different directions because the trafficker has an interest to bind the migrant to the debt-contract. Our model shows that future empirical research should try to take into account the distribution of wealth among refugees as well as their "profile" for the results to be able to be interpreted.

Hannah Arendt is quoted as saying that it is true that one cannot make an omelette without

breaking eggs, but one can break a great number of eggs without making an omelett[30]. It seems, from the above analysis, that indeed many eggs are broken - many rights have been reduced - without achieving to make the omelette - the goals of asylum policy.

[30]Quoted in Nagel (1991), p.7.