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Why has the European refugee relocation quotas program failed, and can we (economists) do something about it?

Hillel Rapoport*

Abstract

In this article I recall how the European Union has faced the recent upsurge of forced migration by describing all the changes in the asylum policy and the reforms of previous treaties. After reviewing previous mechanisms that have been implemented at the national level to reallocate refugees and asylum seekers, I present a new proposal based on a matching mechanism by which refugees express their preferences on countries of destination and countries can trade their quotas of different types of refugees (Tradable Refugee-Admission Quotas, TRAQ). By designing the allocation in three distinct and sequential stages with Computerized Continuous Double Auctions, the final distribution would not be affected by countries' free-riding behavior and avoid remigration, i.e. inter-country movements of migrants from the initial destination.

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Sintesi - *Perché il Programma europeo di riallocazione pro quota dei rifugiati non ha funzionato e che cosa possiamo fare noi economisti per risolvere questo problema?*

In questo articolo viene esaminato come l'Unione Europea ha affrontato il recente aumento della migrazione forzata descrivendo tutti i cambiamenti nella politica di asilo e le riforme dei precedenti trattati. Dopo aver analizzato i precedenti meccanismi che sono stati implementati a livello nazionale per ridistribuire i rifugiati e i richiedenti asilo, viene presentata una nuova proposta basata su un meccanismo di abbinamento in base al quale i rifugiati esprimono le loro preferenze sui paesi di destinazione e i paesi possono scambiare le loro quote di diversi tipi di rifugiati (quote negoziabili di ammissione dei rifugiati, TRAQ).

Progettando l'allocazione in tre fasi distinte e sequenziali con le doppie aste informatizzate continue, la distribuzione finale non sarebbe influenzata dal comportamento di free-riding dei paesi ed eviterebbe la remigrazione, cioè i movimenti fra nazioni di migranti rispetto alla destinazione iniziale.

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1. Introduction

On June 15 1990, exactly five years after the signature of the Schengen Treaty, 12 European countries decided under the Dublin Convention which states should be responsible for examining the asylum applications of individuals seeking international protection under the Geneva Convention. The Dublin system first came into force in 1997 (it was renewed in 2003 and 2013) and established that the country responsible for an asylum claim in the European Union would be the country of first entry. This agreement laid ground for the future of European migration policy and served as the basis for the launch of the Common European Asylum System (CEAS) in 1999.[1]

The treaty of Amsterdam (signed in 1997 and coming into force in 1999) transferred certain powers from national governments to the European Parliament and therefore allowed the European Commission to more easily legislate on asylum issues. This prompted a whole series of directives aimed at harmonizing the asylum systems of the European Member States in terms of reception conditions, recognition rates, border surveillance, etc. For example, the European Refugee Fund was created in 2000 with the objective of formally sharing the financial costs of hosting refugees among the Member States. The fund continued after 2014 under the name of the Asylum and Migration Fund. Other European programs and agencies were born out of the harmonization efforts, such as EURODAC in 2003, FRONTEX in 2005 and the European Asylum Support Office (EASO) in 2010.

In May 2015, the European Commission announced a new European Agenda on Migration (EAM), proposing reforms and acknowledging the flaws of the CEAS and Dublin System. It could be argued that the EAM at least partly emerged because of the concerns in European public opinion created by several successive shipwrecks involving asylum-seekers on the Mediterranean shores. The EC proposed four pillars on which they wanted to base

1 The main legal and adminsitrative sources used in this section are the following :
https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/european-agenda-migration/20180314_annex-5-progress-report-european-agenda-migration_en.pdf
https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/european-agenda-migration/20171207_resettlement_and_legal_migration_en.pdf
https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/european-agenda-migration/20171207_eu_turkey_statement_en.pdf
https://www.ceciliawikstrom.eu/briefing-note-reforms-dublin-regulation/

their new approach to asylum policy. First, reducing incentives for irregular migration. Second, a strong asylum policy, e.g. reviewing CEAS and Dublin. Third, saving lives and securing external borders. Fourth, a new policy on legal migration, e.g. Schengen visas, residence permits and the European Blue Card.

More concretely, the European Commission (EC) proposed emergency operations (Triton, Poseidon) to save lives at sea. It increased the budget for existing policies and further harmonization. And most prominently, the EC promoted the relocation (40,000 from Italy and Greece) and resettlement (50,000 from outside the EU) of refugees and asylum-seekers following a distribution key. This distribution key was the real new policy included in the European Agenda on Migration. It meant the creation of a new scheme for sharing the responsibility of hosting refugees that went beyond the Dublin regulations and the existence of financial compensation. The distribution key divided quotas according to a formula weighting:

1. 40% total GDP of the Member States. The larger the GDP of the Member States, the larger their responsibility in the relocation and resettlement of refugees and asylum-seekers.
2. 40% population. The criterion works in the same way as the GDP. Larger countries in terms of population are supposed to have a larger capacity to absorb refugees.
3. 10% unemployment rate. This works in the opposite direction. Countries with a larger unemployment rate would have to host fewer refugees.
4. 10% number of asylum applications received, and refugees resettled per 1 million inhabitants between 2010 and 2014. The rationale is that those countries that contributed the most to the international public good of the reception of refugees would be required to assume a lower responsibility.

The initial response of the Member States to these proposals was not very favorable. In July 2015, the European Council refused to adopt mandatory quotas. The European countries preferred to stick to voluntary pledges that fell short of the European Commission's numbers: 32,256 for relocation (rather than 40,000) and 18,425 for resettlement (rather than 20,000). How-

ever, the European Commission insisted, and in September 2015, its President, Jean-Claude Juncker, extended the relocation mechanism to Hungary, while proposing to relocate 120,000 additional refugees and asylum-seekers following the same distribution key. He also announced a permanent relocation mechanism that could only be avoided in exceptional cases by paying compensation equal to 0.002% of the GDP of the non-quota-complying state (European Commission, 2015c). Somewhat surprisingly, later in September 2015, the European Council approved the quotas for the relocation of 160,000 refugees and asylum-seekers from Italy and Greece, although they still refused to approve the permanent mechanism. The European Parliament also approved Juncker's plan, and it added that refugee preferences must be considered in the relocation and resettlement procedures (European Parliament, 2014-2019).

In reaction to the mandatory relocation scheme, key East European member states, including Hungary and Slovakia, forcefully opposed this decision. The two countries voted down its initial adoption in the European Council, resisted its application and brought legal challenges before the E.U.'s highest court. Hungary even held a national referendum on the matter — although the low turnout invalidated the outcome of the vote. In September 2017, just a few weeks before the expiration date of the mandatory relocation system, the EU Court of Justice dismissed the challenges brought on by Hungary and Slovakia.

While the mandatory quota system was reaffirmed by the European judicial system, the European Commission still decided to move to a voluntary resettlement scheme in the fall of 2017. This may be owed to their efforts to calm the heated controversy and political divisions across EU Member States. It is also a product of the expansion of bilateral agreements with source and transit countries during 2016 and 2017, which substantially reduced the number of asylum seekers entering the European Union. The voluntary system is now incentivized through financial subsidies of 10,000 Euros per resettled refugee. Half a billion euros have been set aside for EU members to take at least 50,000 refugees directly from Africa, the Middle East and Turkey (with an "increased focus" on taking refugees from North Africa and the Horn of Africa – particularly Libya, Egypt, Niger, Sudan, Chad and Ethiopia).

In December 2017, the European Commission proposed a timeline for

the voluntary resettlement scheme. By February 2018, Member States were to submit pledges for at least 50,000 resettlements. Member States should also ensure that at least 50% of those pledges were effectively resettled in October of 2018; and full resettlement should be achieved by May of 2019. By March of 2018 about 80% of the 50,000 resettlements were pledged, less than 4% have been resettled so far. Nine countries have not pledged to any voluntary resettlement, among them countries that heavily opposed the mandatory scheme, such as the Czech Republic, Hungary, Austria, Slovakia and Latvia.

The controversy around the relocation and resettlement of refugees continues but bilateral agreements with source and transit countries have decreased the inflow of refugees and therefore dampened the political pressure behind those policies. Most notably, the agreement between the EU and Turkey has led to a decrease of illegal border crossings to Greece by 97%. On March 8 2016, the European Union and Turkey signed a co-operation agreement to end the flow of irregular migration from Turkey to the EU. The core of this agreement is the principle that each new asylum seeker crossing from Turkey to Greece will be returned to Turkey. For every Syrian migrant sent back to Turkey, one Syrian already in Turkey will be resettled in the EU. In return, the EU allows the presence of Turkish police officers in Greece, Turkey will receive 6 billion € to manage the arrival of migrants and the EU is committed to restart the accession of Turkey to membership of the EU. According to the EC, 3 billion € were already transferred to Turkey.

While the resettlements under the EU-Turkey Statement are continuing at a steady pace – in total, over 11,490 Syrian refugees have been resettled from Turkey to EU Member States so far, the pace of returns to Turkey from the Greek islands under the Statement remains very slow, with only 2,059 migrants returned since March 2016. There are also contradicting statements between the European Commission and Turkey about how much of the 3 billion Euros promised, have already been transferred to Turkey. In parallel, several other agreements have been made over the course of the last 3 years, for instance, agreements with Niger, Chad and Libya within the framework of Valletta action plan signed in 2015. This agreement aims to reduce migration from Africa through the creation of local hotspots out of which asylum applications are processed. These agreements serve the European Commission's overarching strategy to relieve migration pressure from the countries of first

entry and feed into the overall reform of Dublin III.

The reform of the Dublin Regulation (also known as Dublin IV) is a central measure of the CEAS when was kicked off in 2016 by the European Parliament with the so-called "Wikström Report". The European Parliament adopted the proposal in October of 2017.

One important element of the reform is that an asylum applicant's prior links to a European Member State, will be considered in the decision to accept and relocate him or her. In fact, individuals that have family, have studied or have had prior residence in a Member State, do not have to apply for asylum in the country of first entry but can apply directly in the country where they have had prior links. This proposal stands in contrast with national legislative efforts in some of the Member States. For instance, Germany has introduced a maximum threshold of 200,000 refugees per year and plans to substantially limit family reunification. Overall, there is a movement towards lighter application procedures for asylum seekers with links to Member States which is meant to incentivize asylum seekers to apply in the country of first entry (as they now have the right to be relocated to their desired destination) and discourage illegal border crossings through Europe. Similarly, asylum seekers can also establish links to a desired destination country by finding sponsor organization that encourage the acceptance of the refugee into that Member State. However, there is no legal obligation to do so on the side of the Member State, and experience shows that proposals of sponsor organizations are typically refused.

While this new regulation is an important new principle of the Dublin system, it only affects a small proportion of asylum seekers. A significant proportion of applicants do not have strong prior links to EU Member States. For those applications, the EP proposes a permanent and automatic relocation mechanism (without thresholds) that replaces the so called "fall-back criterion" (e.g. countries of first entry must process the asylum application) of Dublin III. While refugees still apply in the country of first entry, this is not necessarily the country they will remain in. This proposition by the EP constitutes a complete overhaul of the old Dublin system. In the spirit of relieving first entry countries, the EP proposes an acceleration of relocation process. It will define the appropriate procedures in the first Member States of arrival to speed up the process of relocation and there will be substantial contributions

from the EU-budget and the EU Asylum Agency (EUAA) to meet the costs of this relocation.

Similar to the mandatory quota initiated by the European Commission, the European Parliament proposes to calculate the "fair responsibility" of a Member State (MS) based on its GDP and population. In practice, countries of first entry would identify the four least burdened MS (according to the GDP-population calculation) and allow the applicant to choose among them. The privilege to choose among the four MS is taken away from applicants that have crossed a border illegally or those that have claimed prior links to MS which then turn out to be false. This clause is considered punishment for refugees and is therefore often criticized. The European Parliament (EP) defends this policy as a form of incentivizing applicants to comply with the relation procedure.

However, not only applicants but also Member States need to be incentivized to comply with the new relation system proposed by the parliament. On the one hand, countries of first entry would be incentivized to register all asylum seekers since the new regulation deleted the fall back option. Now the place of registration does not imply place of residence for the applicant. First entry states would therefore be more likely to process all applications. Regarding the monetary burden that comes with the processing of applications, a dedicated EU budget is intended to cover these costs.

Additionally, the new relocation system proposes a "filter" that ensures quick processing (and rejection) of applicants with a very low probability to receive refugee status. This filter also applies to applicants that could pose a threat to national security. Wikström speaks of a "carefully calibrated" filter, but it is still unclear what this would mean in practice, particularly in light of the existing legal framework around the Geneva conventions.

The European Parliament also proposes a three-year transition period during which MS who have historically received many asylum-seekers will continue to shoulder a greater responsibility and where Member States with a more limited experience of welcoming asylum seekers would start with a lower share of the responsibility. The European Parliament hopes that this transition period will acquaint MS that have no history of receiving migrants to the accommodation of refugees and that there will be a gradual transition to a fair responsibility sharing. Another incentive for receiving Member States

is a limitation on their access to EU-funds and ability to use EU-funds for returns of applicants that had their asylum claims rejected.

While the European Parliament has already formally adopted the proposal, the Council remains at a stage of informal, bilateral consultations between Member States with a view to agreeing on a common vision of responsibility and solidarity in the Dublin system. There is a dividing line between Members of the Council. On the one hand, a group of countries called Visegrad group (Hungary, Slovakia, Poland, Czech Republic) which are ready to show solidarity with the countries of first entry but they only willing to do so on a financial basis (and to a limited degree). And, on the other hand, there is a group which refuses the exemption from the responsibility to host refugees.

Furthermore, the Wikström report proposes a refugee relocation system that is not very different from the push for the mandatory quota system of the Commission, which famously failed at the hands of some of their Member States. Almost three years after the pledge of the European Commission to relocate 160,000 asylum seekers from Italy and Greece, the balance sheet of the European migration agenda remains unsatisfactory. Only 32,000 individuals were relocated so far and the continuing confrontations in the European Council do not hint at a timely solution. Even if the reform is adopted it would be questionable whether Member States would actually respond to the incentives proposed in the Wikström report. In particular, one has to wonder if a limited access to EU funds in the case of non-compliance is really discouraging enough for Member States to rethink their immigration and refugee policy. This is especially relevant in times when EU skepticism and reluctance towards the accommodation of refugees seem to go hand in hand in some Eastern European countries.

2. What can economists contribute? Recent advances in the "(local) matching for refugees" literature

As we have seen, there are many reasons why the European refugee relocation quotas program (henceforth ERRQP) failed. It caused divisions among Member States, some had principled disagreement against what they saw as a transfer of sovereignty on refugee issues to the EU, or principled disagreement

against the very notion of solidarity in the field of asylum. It is beyond the scope of this article (and clearly beyond my expertise) to analyze the legal and political barriers that eventually sank the ERRQP. There is, however, one area where economics might be useful: the design of proper incentives for Member States to participate. It would certainly be a shortcut and an oversimplification to state that ERRQP failed because "it was too costly" (economically, politically, socially) for some Member States. Obviously, all social and political considerations do not aggregate into a single, quantifiable and merchandisable number. Still, one can acknowledge the complexity of underlying motivations and their inalienable character while at the same time making the point that anything that makes participation less costly makes participation more likely.

This is essentially the philosophy that drove the proposals Jesus Fernandez-Huertas Moraga and I made at the onset of the refugee crisis in Europe in 2014, more than a year before the EU commission proposed its new European Agenda for Migration. It builds on our earlier, more general "tradable immigration quotas" article (Fernandez-Huertas Moraga and Rapoport, 2014), where we envisioned international refugee allocation as one of the main potential applications.

The design of an allocation mechanism that creates the right incentives and leads to an "efficient" distribution of refugees to host societies is what economists can contribute from a theoretical standpoint (see also Jones and Teytelboym, 2017a,b, for local and international refugee matching, respectively). However, the reality of transforming this mechanism into law and policy is not a challenge of technical implementation but a challenge of political will. What seems to stand out more in the political struggle for a new refugee allocation mechanism is a more elaborate consideration of refugees' preferences and some sort of fairness dimension among MS (which is – for now - crudely proxied with economic performance, unemployment, and past hosting of refugees). Matching refugees' preferences in terms of destinations and MS priorities in terms of types of refugees to be hosted is an attractive idea which is starting to find its way in policy reports (e.g., in recent recommendations of the EU Parliament) as well as in practice, albeit unofficially. As outlined in the first section above, the Wilkström Report proposes a form of one-sided matching where refugees can identify their preferred destination. However, MS cannot express their preferences over certain types of refugees.

Rather, they must obey to a certain quota that is calculated based on rudimentary economic indicators (such as GDP or unemployment).

In general, there seems to be substantial political appetite for some form of matching mechanism that includes both MS and refugees' preferences but the economic literature on this topic remains scarce. In what follows, I first review this recent literature, which is centered on the allocation of refugees within a given country, and then discuss in the next section what it would take to make similar advances for the allocation of refugees across countries.

Despite the relatively recent emergence of refugee allocation schemes in the economic literature, both theoretically and empirically, there are already some papers that propose and simulate potential policy designs. Looking at different mechanisms to allocate resettled refugees within the United Kingdom, Delacretaz *et al.* (2016) stress the importance to account for preferences of both refugees and localities. The benefit from accounting for refugees' preferences over resettlement locations is that refugees may have some discretionary information that cannot be observed by authorities but that can improve the quality of a match to a location. It also reduces the chances that a refugee will subsequently remove after a local community would have invested resources into their integration. By reducing the internal migration and by accounting for the preferences of localities over refugees, it provides incentives to the localities to improve their quantitative and qualitative efforts in hosting refugees. These preferences could be asked directly or inferred given some properties of areas (refugees) that are relevant for refugees (localities). The authors also pay a particular attention to multidimensional constraints, which is that a refugee family will not only need a resettlement location, but also a house with enough space, some units of public services such as school seats, hospital beds, slots in language classes or in professional training.

They notably propose two quasi-stable algorithms to realize the matching according to doubled-sided preferences and multidimensional constraints: a Priority-Focused Deferred Acceptance (PFDA) algorithm that is efficient but less incentive compatible when information is available and a Maximum Rank Deferred Acceptance (MRDA) algorithm that is incentive compatible but less efficient. The PFDA algorithm works as follows: each refugee family asks its top-choice resettlement location and the locality tentatively accepts it if it can accommodate the family along with other families it had tentatively

accepted in earlier rounds and if the family has not a lower priority than a family that was rejected at the previous rounds of the algorithm; if a refugee family is rejected from a locality, it will apply to its second-choice resettlement location in a second round and the location will check its application along with those of other families it had already tentatively accepted, and so on until all families are permanently matched. The MRDA algorithm assigns a maximum rank to each family-locality pair and uses it to define a rejection rule. The maximum rank is assigned recursively in each locality starting from the most preferred family and corresponds to the minimum number of refugee families who have a higher priority than the family of concerns and along which the family of concerns cannot be accommodated with, or the smallest number of families that have a higher priority than the family that is just more preferred than the family of concerns and along which the just more preferred family cannot be accommodated with. Then, a family is rejected if the number of families with a higher priority proposing to the same locality in a particular round is no less than the family's maximum rank for that locality.

The allocation of refugees within a given territory across different localities was also studied recently by Bansak *et al*. (2018) where they advocate for the use of already existing data to determine the best matching of refugee families to localities. They build upon the experience of the United States and Switzerland who allocate refugees exogenously to different local offices or cantons respectively. The authors use a supervised machine learning technique – a gradient boosted trees algorithm – to predict the probability of employment of newly arrived refugees according to refugees' personal characteristics that were relevant in the success of earlier waves in a location of interest. Then, the authors transform the refugee-level prediction of employment in all localities to a household-level metric, namely the probability that at least one refugee in the household would find a job in the location. Finally, the authors realize the algorithmic assignment of refugees to locations through a Linear Sum Assignment Problem (LSAP) that satisfies the global maximum on the household-level metric, subject to the constraint that the number of households to allocate should perfectly equal the sum of the number of hosting slots available in each location.

The authors find that their algorithmic assignment increases the average employment rate after 90 days from 34% to 48% in the United States and

from 15% to 26% one year after resettlement in Switzerland. More specific constraints on the services needed for the match to be realized (housing, public services) could be implemented in the LSAP, as well as the preferences of refugees and localities. This proposition is close to one previously introduced by Delacrétaz *et al.* (2016) who also proposed an outcome-quality maximization problem that would be equivalent to a 0-1 multiple multidimensional knapsack problem where the quality would be estimated with observed data. The main takeaway of the article of Bansak *et al*. (2018) is that the quality could be estimated through a machine learning algorithm with a high predictive power and that would be updated after each allocation, which is convenient to reduce the error of prediction over time and to react to potential general equilibrium effects given that refugees may compete for the same jobs in a given locality.

In another context, Andersson and Ehlers (2016) also apply a matching mechanism to allocate refugees but this time to landlords and not to locations. This is due to the fact that Sweden faces housing shortages to relocate refugees such that some NGOs are offering to match landlords, who are offering to host refugees in their housing, with refugees. Because of potential hardships for the landlords to give preferences over the refugees they want to host and because it may be difficult to collect complete information about the refugee households, preferences can be induced using solely a language requirement. The incomplete preferences are approximated by a concept of mutual acceptability that is here that matched refugees and landlords have a spoken language in common and that the number of family members does not exceed the capacity of the landlord.

The authors propose an efficient stable maximum matching where refugees only report the language they speak and landlords order their preferences over the languages they can speak and indicate the number of available beds in their dwelling. The algorithm matches a refugee household with a landlord only if the refugee speaks the landlord's most preferred language and if the size of the refugee household does not exceed the capacity of the landlords, given that landlords can only accommodate one refugee family – if not they would be considered as a hotel business by the Swedish law – and that they strictly prefer larger refugee family as they are remunerated for hosting them. Such a system could be particularly relevant for NGOs who already offer this

service and who dispose of only limited information on some criteria such as the capacity, the language or some other variables.

Overall, the literature is focused on national allocation schemes, where some of the limitations that apply to the international context are not taken into account. While a central government has numerous tools to incentivize local authorities and can force their participation, this is not the case at the international level.

3. What can economists contribute: the rationale for TRAQS with (international) matching

At the international level, it is more difficult to design incentive/sanction mechanisms to insure countries participation. The first step that Jesus Fernandez-Huertas Moraga and I proposed, therefore, was a quota system to assign responsibility in asylum protection among potential destinations. Incidentally, the first step we suggested, the quota system, is precisely what the EU Commission proposed in the spring and the EU Council adopted in the fall of 2015. Our rationale was (and still is) the following. Providing asylum is an international public good. The European Member States benefit from receiving refugees; otherwise, there would be no Common European Asylum System (CEAS). However, the reception of refugees is also perceived as costly, so that there are incentives for countries to try to free ride on other Member States for this provision of protection. These free riding incentives become more salient in times of crisis. In 2015, in the context of large refugee flows originating mainly from Syria, the European Commission launched the European Agenda on Migration in order to try to improve the coordination of asylum policies by reducing free-riding incentives through the attribution of responsibilities. The way these responsibilities were attributed depended on a distribution key based on a set of objective criteria (GDP, population, unemployment, past refugee arrivals) that were supposed to be related to the physical capacity of the Member States to receive refugees and asylum seekers.

We argued that this attribution of responsibilities is just one necessary, but insufficient first step for the coordination of the reception of asylum seekers across the European Member States and proposed that this first step should

be completed with two additional ones. In the next section I will describe the design of the allocation mechanism and how it interacts with the incentives of Member States and refugees alike.

The question of allocating refugees was first mentioned in a context where the European Union had decided to introduce some solidarity between countries in the field of asylum. In 2015, European countries agreed to relocate 66,400 refugees out of Greece and 39,600 out of Italy. However, as of December 31, 2017, only 33 and 29% of them respectively had been indeed relocated. In order to improve the solidarity in asylum between European states, Rapoport and Fernandez-Huertas Moraga (2015) propose to supplement the existing quota allocation with a more incentivized system that relies on a matching mechanism and on a tradable quota system. Such a system would increase the cost-efficiency of hosting refugees from the perspective of host countries, making them more likely to participate, would improve the integration prospects of refugees and would give countries incentives to treat refugees decently.

These interesting features are obtained with a matching mechanism whereby refugees' preferences over destinations and destination countries' preferences over refugee types are taken into account and with a tradable quota system, given the initial quotas that were distributed across destinations. Each country's quotas are traded on a market where, at a given price, some countries would be willing to get paid to receive refugees in excess of their quota and some other would be willing to pay to receive fewer refugees than their quotas, such that countries could contribute to refugees' resettlement either through visas or through money.

Building upon the literature on college admissions (Gale and Shapley, 1962; Roth, 1985), Rapoport and Fernandez-Huertas Moraga (2015a,b) use a country-proposing deferred acceptance mechanism that works as follows: each country submits its preferences over refugees, then refugees accept their most preferred visa among the countries willing to accept them and reject the others; rejected countries would then again offer visas to their most preferred refugees who have not rejected them yet. Refugees with several visa offers would then hold to their most preferred visa and reject the others; the process would continue until no countries would have visas left to offer. Such a system would be incentive compatible – preferences would be truthfully revealed

–, efficient – no Pareto-improvements would be possible –, and fair – providing an equal treatment.

In order to integrate these new waves of relocated refugees into their country, hosting countries started to look for a distribution key to spread the burden of hosting refugees between different geographical locations within the country. Spreading refugees across different locations of the same country has already been carried out starting from the 90s in countries such as the United Kingdom, Denmark or Sweden (Wren, 2003), mostly on the basis of administrative criteria such that the allocation was considered as exogenous. However, the literature emphasized that such a blind allocation could turn out to be detrimental for the integration of refugees (Edin et al, 2004; Wren, 2003; Andersson et al, 2010), and alternative options started to be considered.

I see at least three substantial differences between matching students to schools and matching refugees to destination countries, and these differences explain why matching of refugees is essentially different from the context of school choice:

- First, one side of the match (the country of destination) has an interest not to be chosen. Rather, each country is happy to free ride on others' efforts to host refugees; this is essentially due to the public good nature of refugee protection, which is absent from the context of school choice.
- Second, matching for refugees entails substantial secondary movements (remigration), which represent important costs for refugees as well as for governments. Again, such remigration is absent from the context of school choice (i.e., students admitted in a given school do not illegally enter to other schools).
- And third, matching for refugees is by nature a multidimensional screening exercise: it involves security screening, obviously, but also screening between "true refugees" and "economic migrants", a distinction which is of first-order importance in refugee law and policy (while students are just, well, students).

3.1 Incentives "not to be chosen" (and how TRAQs with matching could solve this problem)

The risk with matching for refugees is to generate a race to the bottom in humanitarian standards, as one side (countries) has an incentive not to be chosen. This risk is very concrete and manifests itself in different ways. Recent variants include refusing the very idea of a quota system, or of any solidarity obligation in refugee protection (as exemplified prominently by Hungary and the other countries composing the Visegrad group); being cynical about not being attractive (for example, Mr. Sobotka, the Czech Prime Minister, famously declared in June 2015, following the publication of the "New European Agenda for Migration", that "refugees from the Middle East and Africa don't want to come to the Czech Republic because it is too cold"); or deterrence through bad treatment such as long delays in processing applications, providing bad material conditions for temporary housing, low-integration prospects through restricted labor market access, not to mention systematic deportation to places such as Nauru (as done by Australia).

The main solution to avoid such race to the bottom in humanitarian standards would seem to impose a refugee quota system, as was proposed by the European Union, supplemented either by heavy sanctions or by financial overcompensation. This is easier said than done, and easier done at the sub-national level (Central Governments can use carrots and sticks to obtain compliance from regional or municipal authorities, as the examples of Germany or Switzerland illustrate) than at the international level. And indeed, financial sanctions are part of the European relocation program and quota system; however, financial sanctions are still to be determined – they were initially set at 0,001 percent of a country's GDP in case it would refuse to take its "fair share" of refugees when the relocation program was resubmitted to the European Council in September 2015 (corresponding to a sanction of one to two-thousand euros per refugee in case of refusal) to … more than one hundred times more, that is, €250,000 per refugee in May 2016 as part of the program's revision. This also points to the need to "find the right price" in any incentive-sanction mechanism of refugee allocation.

The policy proposal Jesus Fernandez-Huertas Moraga and I proposed to address the free riding and the race-to-the-bottom issues in the context of the European refugee crisis is a system we called "Tradable Refugee-Ad-

mission Quotas (TRAQs) with matching" (Fernandez-Huertas Moraga and Rapoport, 2015). It is best described as a three-stage rocket:

- The first stage consists in the allocation of "**initial quotas**" according to some distribution key among participating countries. Here we were agnostic as to the size of the total quota, or the exact distribution. Recall that the EU relocation program adopted in September 2015 planned to allocate 160,000 asylum seekers stranded in Greece or Italy among the other EU member countries according to a distribution key based on countries' GDP (which receive a weight of 40 percent), population (for another 40 percent), unemployment rate and past efforts to host refugees (for a weight of 10 percent each).
- The second stage consists in the **"matching mechanism"**, whereby refugees' preferences over destinations and destination countries' priorities over refugee types are taken into account. Again, our proposal was agnostic as to which exact model (e.g., countries proposing first or refugees choosing first) should be applied, the only constraint being that refugees should not be sent to a country they did not choose as potential destination when stating their preferences.
- The third stage consists in the **"tradable quotas system**", which allows for combining physical and financial solidarity; in other words, countries are giving the choice to contribute to refugee protection either "in kind", by hosting refugees, or "in cash", by finding physical protection by others, with the price of a refugee-admission visa set by a market mechanism.

Note that the third stage cannot work without the other two, and the second cannot be implemented without having the first in place – hence the rocket metaphor. Indeed, while we were first to propose to apply matching mechanisms to the refugee issue, *the only theoretical innovation we claim lies is their combination with tradable refugee-admission quotas.* Actually, we believe that each tool provides the "cure" to the "poison" of the other, so that the two should not be used separately. In our view, the risk with implementing a Tradable Refugee-Admission Quotas system (TRAQs) alone is a risk of "refugee dumping", namely, that rich (or very refugee-unfriendly) countries would pay poor countries that would be willing to accept refugees for a good enough

price but would treat them badly; as mentioned above, combining tradable quotas with a matching mechanism would strongly limit such possibility as refugees would not choose to go to a country with low humanitarian standards. Matching alone, however, entails another risk, the risk of a race to the bottom in humanitarian standards, as explained above. The type of tradable quotas system we propose limits such risk as it includes a sanction mechanism whereby countries pay the market price for the unfilled part of their quota; in that configuration, it is always good news for a receiving countries to be "oversubscribed", i.e. to be listed as potential destination by more people than the size of its quotas – if anything, the proposed system provides incentive to become more attractive, not less. Or, in the words of Prime Minister Sobotka: to become a warmer, not a colder place.

In practice, TRAQs could be organized as a "Computerized Continuous Double Auctions" (CCDA), which are often used for trading equities and derivatives. CCDA is a mechanism to match buyers and sellers of a particular good, and to determine the prices at which trades are executed: countries place bids (buy orders) and asks (sell orders) simultaneously, outstanding orders are maintained in an order book, and the market price is determined by the set of orders in the order book. Countries may at any time buy or sell immediately at the market price, while trades are executed whenever the highest bid exceeds or is equal to the highest ask price.

Overall, our view was that supplementing the quota system with a mechanism combining TRAQs with matching would make the relocation program more efficient (cost-effective) from the perspective of host countries and, therefore, make them more likely to participate; allow for taking refugees' preferences into account, hence improving their integration prospects; and introduce a sanction mechanism that gives countries incentives to treat refugees decently (and become more attractive, as explained). However, one may ask whether trading refugee-admission quotas belongs to the category of "repugnant" markets, whether the proposed system is politically feasible, and whether there are better alternatives (voluntary pledges, incentive auctions?); for sure, there are many open questions that must be addressed by future research before the proposal can be taken fully seriously by policymakers.

3.2 Remigration and screening: first or second-order issues?

Two other dimensions of the refugee allocation problem make it essentially different from school choice: secondary movements (or remigration), and screening.

Matching models can to some extent reveal the true ranking of destinations from the viewpoint of a candidate refugee offered asylum and legal refugee status; they are unable, however, to reveal the full ranking of refugees' preferences that accounts for heterogeneity in legal status. For example, one may prefer Belgium over Portugal and state this in a declaration of preferred destinations to be used for matching refugees to places. But what about choosing between Belgium as an illegal immigrant versus Portugal as a legal refugee? Assume a given refugee prefers to be illegal in Belgium rather than a legal immigrant with full refugee rights in Portugal? That person would likely accept to go to Portugal as a way to enter the European Union but would then leave and migrate illegally to Belgium. This possibility is everything but virtual. Actually, the vast majority of refugees who arrived to Portugal in 2016 as part of the European relocation program had left by the end of the year. Maybe more complicated from a modeler's viewpoint, that person could prefer Portugal to Holland as legal refugee and yet choose Holland over Portugal in the matching mechanism given the easier route from Holland to Belgium. In such a case, the possibility of remigration causes a misrepresentation of individual preferences, a manipulation that matching models aim at avoiding in the first place.

The question of secondary movements is no less important from the viewpoint of receiving countries than the question of which type of refugees should be prioritized. Remigration comes with illegality, and with illegality come all the "bads" (such as lack of tracking, crime, and insecurity) that national and local authorities want to avoid at all price. From this perspective, different matching models (e.g., random serial dictatorship v. rank-minimizing algorithm for one-sided models) will result in different levels of remigration, which may make them more or less desirable for governments, depending on the potential tradeoffs between priorities and secondary movements.

In addition, the elephant in the room with remigration and secondary movements is the issue of screening. This includes, obviously, "security screening", as well as the more traditional screening issue that has plagued the

debates over refugee and asylum policy, that is, screening between "true refugees" and "economic migrants" abusing the asylum system (e.g., Bubb and Kremer, 2011). Here again, applying matching models mitigates the problem but does not eliminate it: those who rank a long list of potential acceptable destinations have a higher chance of eventually making it; but this information cannot be used directly for screening as this would lead to manipulation. Again, different matching models will perform differently with respect to this type of screening, something that can be modelled theoretically and possibly evaluated empirically in pilot/experimental matching for refugees programs.

4. Conclusion

In different publications (Fernadez-Huertas Moraga and Rapoport, 2015a,b), we also offered a series of simulations on how the compensation mechanism would shape the final distribution of responsibilities in terms of financial and physical contributions in the context of the European Union. All of the simulations start from the distribution key proposed by the European Commission and then let refugee-friendly countries be compensated by refugee-unfriendly ones for the reception of additional refugees. The simulations assume that the degree of refugee-friendliness depends on a particular functional form that is varied to show its robustness to different assumptions. In particular, refugees are assumed to be costly in net terms for receiving countries, either because of the physical costs of reception or because of the political and social perceived costs for individual countries that outweigh the potential benefits. We parameterize countries' friendliness towards refugees in two different ways. One is what we call the revealed preferences approach. We consider the voluntary quotas pledged by the European Member States for the resettlement and relocation of refugees in July 2015 as an expression of their unilateral costs of hosting refugees. Another set of simulations is based on what we call the stated preferences approach. In this case, we use survey information on European inhabitants' opinions on refugees to infer the average like or dislike of a government for hosting refugees.

The objective of the simulations is to show what happens when the reception costs are heterogeneous in different dimensions. All of our simulations

show that the compensation mechanism is a notable improvement over the rigid distribution key proposed by the European Commission in the European Agenda on Migration. They also show that the subsidy of 10,000 euros per refugee relocated is too low for countries to accept larger numbers of refugees. Furthermore, the simulations show that the attribution of responsibilities through quotas can generate different winners and losers among the Member States, depending on the true (and unknown) perceived costs of hosting refugees. Countries perceiving refugees to be less costly for them tend to benefit from this attribution of responsibilities more than countries that perceive refugees as being more costly for them. This observation has two implications: a positive one and a negative one. The negative one is that it is not easy to sustain a coalition of winners to support the attribution of responsibilities. The positive one is that the system generates incentives for countries to become more refugee-friendly over time.

More generally, our goal was to show that allowing the European Member States to choose their preferred mix of physical and financial contributions for refugee protection can have large efficiency gains. The efficiency gains come from avoiding the free-riding problem in asylum provision, while making sure that refugees are hosted wherever it is less costly to do so. The matching mechanism makes sure that refugee rights are not jeopardised by the compensation mechanism among the states. Furthermore, it allows further efficiency gains to be reaped from the smoothing of the physical relocation process and from allowing countries to choose their preferred types of refugees, for example, in terms of skill levels or in terms of countries of origin.

References

Andersson, R., Bråmå, Å., & Holmqvist, E. (2010). Counteracting segregation: Swedish policies and experiences. *Housing studies*, *25*(2), 237-256.

Andersson, T., & Ehlers, L. (2016). Assigning refugees to landlords in Sweden: Stable maximum matchings.

Bansak, K., Ferwerda, J., Hainmueller, J., Dillon, A., Hangartner, D., Lawrence, D., & Weinstein, J. (2018). Improving refugee integration through data-driven algorithmic assignment. *Science*, *359*(6373), 325-329.

Delacrétaz, D., Kominers, S. D., & Teytelboym, A. (2016). Refugee resettlement. *Unpublished*.

Edin, P. A., Fredriksson, P., & Åslund, O. (2004). Settlement policies and the economic success of immigrants. *Journal of Population Economics*, *17*(1), 133-155.

Fernandez-Huertas Moraga, Jesus and Hillel Rapoport (2014): Tradable Immigration Quotas, *Journal of Public Economics,* 115: 94-108.

Fernandez-Huertas Moraga, Jesus and Hillel Rapoport (2015a): Tradable Refugee-admission Quotas and EU Asylum Policy, *CESifo Economic Studies*, 61 (3-4): 638-672.

Fernandez-Huertas Moraga, Jesus and Hillel Rapoport (2015b): "Tradable Refugee-Admission Quotas (TRAQs), the Syrian Crisis and the New European Agenda on Migration" , *IZA Journal of European Labor Studies*, 4-23.

Jones, Will and Alex Teytelboym, 2017a. The local refugee match: aligning refugees' preferences with the capacities and priorities of localities, *Journal of Refugee Studies*.

Jones, Will and Alex Teytelboym, 2017b. The International Refugee Match: A System tjat Respects Refugees' preferences and the priorities of States; *Refugee Survey Quarterly*, 36, 2: 84-109.

Gale, D., & Shapley, L. S. (1962). College admissions and the stability of marriage. *The American Mathematical Monthly*, *69*(1), 9-15.

Roth, A. E. (1985). Common and conflicting interests in two-sided matching markets. *European Economic Review*, *27*(1), 75-96.

Wren, K. (2003). Refugee dispersal in Denmark: from macro-to micro-scale analysis. *Population, Space and Place*, *9*(1), 57-75.

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Questi ed altri ancora i temi che questo numero di Economia Italiana, coordinato da Giuseppe De Arcangelis, si propone di approfondire.

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