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The Effect of Visa Policies on International Migration Flows

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INTRODUCTION

International migration flows are the combined effect of individual decisions to change one's own country of residence in search of better living conditions. Whether they leave their source country freely or are forcefully ejected, international migrants try to choose the destination that offers them their highest level of satisfaction and happiness. However, as in any individual or collective maximisation problem in economics, the decision of choosing which is the best country to live in is subject to restrictions.

Migration policies can, in principle, either ease or increase these restrictions, but they will only be able to do so if they are effective, that is, if they do, in fact, ease or restrict the access of international migrants to the countries where they are implemented.

There was very little evidence on the effectiveness of migration policies until the end of the 20th century. The widespread perception was that the rigorous migration policies of the United States before World War I (Hatton and Williamson 1998) had succeeded in stemming migration flows, but the very coincidence with the war made this claim difficult to quantify. The main reason for this lack of quantifiable evidence was the difficulty in obtaining both high quality data on migrant arrivals and a homogenous coding of migration policies. In a seminal paper, Hanson and Spilimbergo (1999) tried to overcome these problems by looking at the effect of hours spent patrolling the US-Mexico land border on apprehensions of Mexican undocumented immigrants at the border. They computed an effect of their migration policy variable (hours of work on enforcement) on a proxy for international migration flows (apprehensions). However, they could not translate this estimation into an effect on actual migration flows, as they lacked the data required to do so. Their work nevertheless gave rise to a large body of liter-ature on the effects of border controls on migration flows, mostly focused on Mexico to US migration.

Despite the emphasis on undocumented border crossings, most of the international migrants to the United States and other developed countries actually travel by plane. When travelling by plane, a potential migrant may or may not need a travel visa to enter her destination depending on her country of origin. In order to facilitate tourism or business travel, many destinations exempt particular countries of origin from this travel visa requirement, offering their citizens a visa waiver. Together with Francesc Ortega, we first noticed that these visa waivers could actually have huge effects on regulating international migration flows (Bertoli et al. 2011). When Spain introduced a visa requirement for Ecuadorian travellers in August 2003, Ecuadorian immigration to Spain dropped by 80% and the effect of the policy was almost instantaneous (see Figure 1). In the five previous years Ecuador had become the second country of origin for immigrants in Spain, with over 400,000 arrivals.

Later research showed that this type of effect was not specific to Ecuadorian inflows, but had a relevant role in explaining the Spanish immigration boom from several origins between 1997 and 2009 (Bertoli and Fernández-Huertas Moraga 2013) and general immigration flows to OECD countries between 1990 and 2000 (Bertoli and Fernández-Huertas Moraga 2015).[1]

Furthermore, these visa policies generate externalities, in other words, migration flows to third countries are also affected by them. When Spain introduced its visa requirement for Ecuadorians, this not only reduced migration flows from Ecuador to Spain, but also increased those from Ecuador to alternative destinations like the United States. This externality on third countries was first estimated by Bertoli and

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[1] We are not the only authors who have shown the relevance of travel visa restrictions on international migration. Others like Beine and Parsons (2015) and Czaika and de Haas (2017) have confirmed and extended our earlier results.

Figure 1

Monthly Inflows of Ecuadorians to Spain, 1999 to 2007
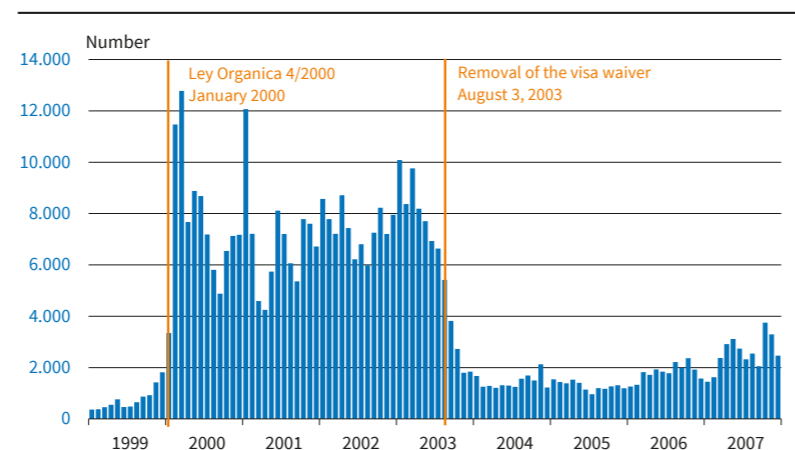
Source: Bertoli et al. (2011, Figure 2).   © ifo Institute

Fernández-Huertas Moraga (2015) although many authors had already hypothesised its existence (Boeri and Brücker 2005) or developed it theoretically in different contexts (Giordani and Ruta 2013).

Data and tools have finally become available to quantify the effect of visa policies on international migration flows. The key finding, according to the first results, is that the effects are very large and go beyond the particular origins and destinations that are targeted. The implication is that an optimal management of migration policies requires some type of coordination at the global level, otherwise migration policies could end up being more restrictive than the citizens of the countries imposing them actually want them to be.

The next section examines in greater detail what a travel visa policy is and how its direct effects are estimated. Section 3 explains its indirect effects on third countries and section 4 concludes the paper.

DIRECT EFFECTS OF VISA POLICIES

Travel visa policies are dyadic variables. The dyad is formed by an origin-destination pair. They are imposed by a destination country on the travellers of an origin country. The direct effect of the visa policy refers to its effect on the migration flows going from a country of origin to a given destination. For example, if Spain imposes a visa requirement on citizens from Ecuador, the direct effect is the one observed in Figure 1: namely, how Ecuadorian migration flows to Spain vary with the visa policy.

To the best of our knowledge, Neumayer (2006) first decided to collect and codify data on visa waivers from the November 2004 edition of the International Civil Aviation Association's Travel Information Manual. Neumayer (2006) built a dichotomous variable signalling whether the citizens of a country of origin are requested to have a visa for entering into a country of destination, or whether they benefit from a visa waiver. Visas that need not be requested before travelling are considered as visa waivers, as a visa that can be obtained upon arrival is assumed to be easily attainable.

The first authors that considered the possibility that travel visas could impact migration flows were Grogger and Hanson (2011). They actually found that a visa waiver was correlated with an increase in migration flows of an origin to a destination of 80%, but barely commented on it because the result was marginally significant (Table 4, column 1) and it actually changed signs in an alternative specification (Table 5, column 1).

We (Bertoli and Fernández-Huertas Moraga 2013) compiled a database of changes in Spanish immigration policies between 1997 and 2009, a period during which Spain underwent the largest immigration boom in the OECD, receiving over 6 million immigrants and becoming the second immigration destination in the world after the United States. We regressed quarterly migration rates to Spain on the set of immigration policies, including travel visa restrictions, and other con-trols, such as economic conditions at origin countries. Our key finding was that Spanish travel visa restrictions imposed on particular origins reduced the inflows into Spain from those sources by at least 74%. Notably, this result only emerged once our empirical strategy took into account what we termed as multilateral resistance to migration, that is, the influence exerted by third country conditions on bilateral migration rates. The reason is easy to understand. An empirical strategy that disregards third-country effects tends to conflate the direct effect of policies with the indirect effect on third countries. In the case of visa restrictions, it has to be taken into account that these are coordinated within the European Union. That means that, at the same time that Spain imposes a visa restriction on Ecuadorians, Italy, another popular destination for Ecuadorians, is doing the same. The Spanish visa makes migration to Spain more expensive and hence less attractive for Ecuadorians, but the Italian visa has the opposite effect. Making Italy less attractive makes Spain, in turn, more attractive. Trying to estimate the effect of the Spanish policy while disregarding the Italian policy will result in averaging across the two: the negative effects of the Spanish policy will be attenuated by the positive effects of the Italian policy.

We hypothesise that the lack of an appropriate estimation strategy to control for third-country policies may have been behind the instability of the results in the earlier literature on the effects of migration policies. That has certainly been the case in our work. In Bertoli and Fernández-Huertas Moraga (2013), the effect of visa policies is statistically zero if we follow traditional methodologies, but highly significant if we control for multilateral resistance to migration.

In Bertoli and Fernández-Huertas Moraga (2015), we estimate the effect of travel visa policies on net migration flows from 182 origins to 31 OECD countries between 1990 and 2000. Again, when we follow traditional estimation strategies and disregard the role of alternative destinations, the results point to a zero effect of visa policies. However, once we control for multilateral resistance to migration, we estimate that travel visa requirements reduced immigration to the OECD by between 40% and 47% on average. In this case, we do not offer a more precise estimate because our data and our methodology do not allow us to recover a crucial parameter: the one governing the degree of substitutability between alternative destinations for a given origin. We know this is a correlation between 0 and 1, which gives us an upper and a lower bound, following Schmidheiny and Brülhart (2011), on the effect of visa policies for each origin-destination dyad. We thus have a whole distribution of effects depicted in Figure 2, with both bounds ranging between a 0 and 50% effect, but with the reported average of 40% for the upper bound (let us recall that it is a negative effect) and 47% for the lower bound.

The 1990-2000 data used in Bertoli and Fernández-Huertas Moraga (2015) came from the database

Figure 2

Bounds for the Direct Effect of the Visa Requirement on Migration Flows to the OECD (1990–2000)
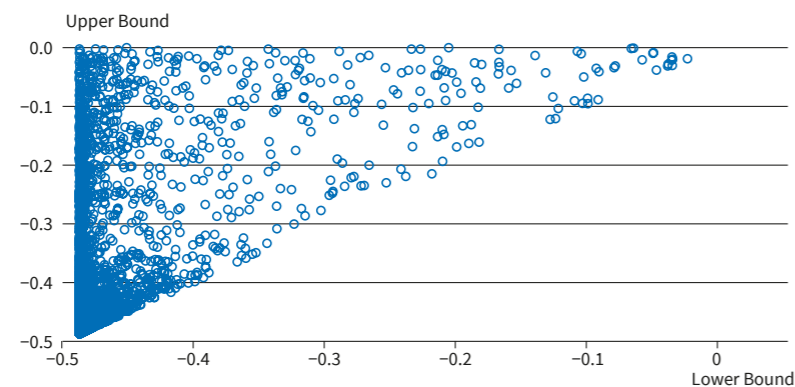
Note: Each circle refers to the effect for one origin-destination dyad.
Source: Bertoli and Fernández–Huertas Moraga (2014, Figure 4).

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compiled by Docquier et al. (2009), which allows a separate estimation by skill level. It seems likely that the costs imposed by travel visa requirements should be easier to overcome by richer, more highly skilled individuals (with at least a college degree) than by low-skilled individuals. This is exactly what we find and report in Bertoli and Fernández-Huertas Moraga (2014), the longer version of the published article Bertoli and Fernández-Huertas Moraga (2015). Visa requirements reduced high skill immigration flows to OECD countries by between 35% and 42% between 1990 and 2000. In the case of low skill immigration, flows were reduced by between 40% and 50%.

Recently, Czaika and de Haas (2017) presented new estimates of the effect of travel visa restrictions on migration flows. Rather than using the evolution of visa policies of one particular country over time, as in Bertoli and Fernández-Huertas Moraga (2013) with Spain, or a single cross section of visa policies, as in Bertoli and Fernández-Huertas Moraga (2015) who used the original data from Neumayer (2006),[2] Czaika and de Haas (2017) take advantage of the new DEMIG VISA dataset[3] that they collected with other researchers in the framework of the DEMIG project.[4] This dataset extends the one used in Neumayer (2006) to the period 1973-2012. The authors complement this information with the DEMIG C2C dataset on bilateral immigration and emigration flows between 34 destinations and 190 origins between 1973 and 2011. Czaika and de Haas (2017) first document that visa introductions and removals are quite frequent, with over 1,000 changes in their dataset. They then go on to estimate the

effect of visa requirements on migration flows. They find that inflows are reduced by 67% and outflows by 88%, with a total effect of a 38% reduction in net migration. Their high quality data allows them to instrument for the visa policy with the similarity of voting patterns in the United Nations between the origin and the destination, although they do not control for multilateral resistance to migration and disregard zero corridors, which could potentially bias their estimates (Beine et al. 2016).[5]

MIGRATION POLICY EXTERNALITIES: INDIRECT EFFECTS OF VISA POLICIES

Immigrants choose where to locate by evaluating their potential satisfaction with alternative destinations. This implies that a visa requirement imposed by a destination on a source country will not only directly impact the bilateral flow, but also the flows of that origin to alternative destinations. If visa restrictions restrict migration to a particular destination, they can also be expected to divert migration to locations that can be perceived as close substitutes by the prospective migrants.

The empirical difficulty lies exactly in whether the data can allow us to identify the degree of substitutability across destinations for the immigrants from a given origin country. To our knowledge, only Bertoli and Fernández-Huertas Moraga (2015) have tackled this issue empirically to date.

The same estimation strategy that allowed them to calculate that visa requirements reduced migration flows to OECD countries by between 40% and 47% between 1990 and 2000 implied some boundaries for the indirect effects of visa policies. In particular, they found that a visa requirement in a substitute country increased migration flows to a destination by between 3% and 17%. As before, there is a wide range of estimates, one for each origin-destination dyad, that are depicted in Figure 3. The range is even wider than in Figure 2, with both bounds lying almost between 0 and 1. This is because the differences in size between countries can make the indirect effects of the visa policy of a large country on a small country extremely large.

It is easier to understand the nature of these indirect effects by considering a couple of examples. Firstly, consider Canada, which received just over 12,000 migrants from Mexico between 1990 and 2000; our esti-

mates suggest that this bilateral flow is highly sensitive to the policies adopted in the US, which represent the largest destination for Mexican migrants. The estimated indirect effect of the US visa policy on Mexicans upon the migration flow from Mexico to Canada ranges between 90% and 91% of the actual flow. This figure is much larger than the direct effect of the Canadian visa policy toward Mexicans, which is estimated at minus 48%. Hence, the flow of Mexicans to Canada would respond less to a change in the Canadian visa policy than to a change in the US visa policy toward Mexicans.

Another example could be Turkish migration to Germany and the Netherlands. If Germany had offered a visa waiver to Turkish citizens during the 1990s, Turkish immigration to the Netherlands would have decreased by 54–57%: from 34,000 to 18,000–19,000. Turkish immigration to Germany would have gone up by 19–21%: from 390,000 to 465,000–472,000.

CONCLUSION

Visa policies are effective in managing international migration flows. A visa requirement on the citizens of a source country has been shown to significantly reduce immigration from that source to the destination requiring the visa. Furthermore, this type of policy generates externalities, meaning that migration flows also correspondingly increase in substitute destinations, although their policies have not changed.

The implication of these results is that the unilateral setting of visa policies can be inefficient, as countries may not take into account that their policy could be affecting their neighbours. In economics, the solution to such inefficiencies is the coordination of these policies. This is what the Schengen Agreement did in Europe since 1990 with its common visa policy. Even if originally put in place to facilitate business and tourism trips and promote coordination in these areas, the European Commission is becoming fully aware of the implications of the common visa policy for immigration flows. This is illustrated by the European Commission's decision to introduce a visa suspension mechanism in 2013, to be activated if irregular migration flows from a visa-free origin increased substantially.

Figure 3

Bounds for the Indirect Effect of the Visa Requirement on Migration Flows to the OECD (1990–2000)
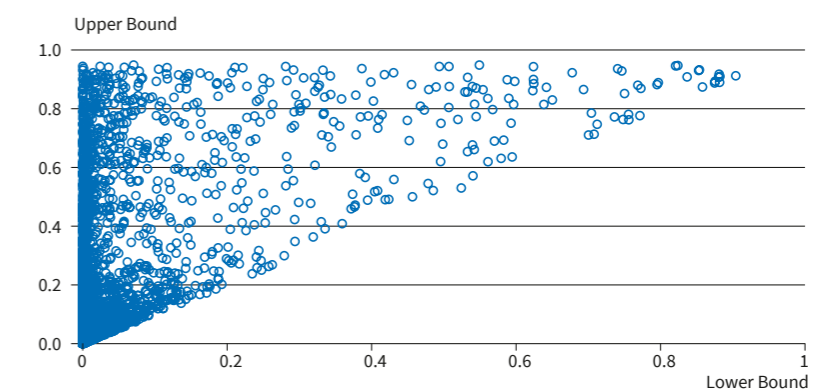
Note: Each circle refers to the effect for one origin-destination dyad.
Source: Bertoli and Fernández–Huertas Moraga (2014, Figure 4).

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[2]   Bertoli and Fernández-Huertas Moraga (2015) estimated the effect of the 2004 visa requirements on 1990-2000 migration flows, which introduced measurement error in the visa variable. However, the results were robust to the estimation of the model with 2005-2006 data from Ortega and Peri (2013).
[3]   Beine and Parsons (2015, table 11) used a small extraction of three years from this dataset to estimate the effect of visa requirements on migration flows between 1970 and 2000. They found that visa requirements reduced flows in that period by 55%.
[4]   See www.migrationdeterminants.eu. Unfortunately, neither the web page nor the DEMIG VISA data were yet available as of writing this paper.

[5]   Czaika and Neumayer (2017) do a better job with the same dataset when measuring the effect of visa policies on other globalization flows: travel, trade and FDI.