

More Migration and Less Remittances?  
An analysis of Turkish, Polish and Mexican Migration as  
they evolve from Remitters to Savers

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Abstract

Conventional wisdom argues that the relationship between migration and remittances is positive and reinforcing. The basic idea is that as the number of migrants in a host country in period one grows, the level of remittances sent to the home country will increase in period two, *ceteris paribus*. Likewise, as the level of remittances received in the home country increases in period two, the level of migration to the host country will increase in period three. These phenomena could be summarized in a nutshell as "more migration, more remittances". Although there is substantial evidence to prove that this dynamic is true, we will argue in this paper that the relationship between migration and remittances is not always positive and could be negative depending on demographic, banking and immigration policies that are seldom analyzed comprehensively by scholars or policy makers. In this paper we will present evidence to show that an obvious factor molding the relationship between migration and remittances is the demographic composition of the migratory flow, which could be an unintended byproduct of immigration policies in host countries. A migration flow of children and women, following family reunification policies, will potentially lead to a significant reduction of both the supply and demand of remittances. As the money will now stay in the host country, this will result in a counterintuitive dynamic: more migration, but fewer remittances. In short, remitters will become savers. In order to show how this dynamic operates we will analyze the case of Turkish and Polish migration to Germany and of Mexican migration to the United States.

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“Migrant remittances are a steadily growing external source of capital for developing countries.”

*OECD International Migration Outlook*

“...if the number of migration increases by one percent, this would increase remittance flows by about 0.4 percent”

*Niimi and Özden (2006)*

## **Introduction**

The above quotes illustrate a common assumption regarding the relationship between migration and remittances. Conventional wisdom argues that the relationship between migration and remittances is positive and reinforcing. The basic idea is that as the number of migrants in a host country in period one grows, the level of remittances sent to the home country will increase in period two. Likewise, as the level of remittances received in the home country increases in period two, the level of migration to the host country will increase in period three. These phenomena could be summarized in a nutshell as "more migration, more remittances".

Although there is substantial evidence to prove that this dynamic is true, we will argue in this paper that the relationship between migration and remittances is not always positive and could be negative depending on demographic, banking and immigration policies that are seldom analyzed comprehensively by scholars or policy makers (some exceptions are Bauer and Sinning 2006, Cobb-Clark and Hildebrand 2002, Amuedo-Dorantes and Pozo 2002).

We will present evidence to show that an obvious factor molding the relationship between migration and remittances is the demographic composition of the migratory flow, which could be an unintended byproduct of immigration policies in host countries. A migration flow of children and women, following family reunification policies, will potentially lead to a significant reduction of both the supply and demand of remittances. As families reunify in the host country, both the original and the new migrant will have fewer relatives to send their remittances to. This will result in a counterintuitive dynamic: more migration, but fewer remittances.

An additional phenomenon is the openness of the banking system to non-citizens (including undocumented aliens) in host countries. This has a conflicting effect on remittances. On the one hand, the level of remittances received in the home country will increase as remitting costs from the host country decreases; this could be the case even

if the level of remittances sent remains relatively constant. On the other hand, as the banking system opens up for migrants, it also becomes easier to save in the host country rather than to do so in the home country. This choice, along with family reunification, will transform remitters into savers.

In order to support our arguments we will analyze data from the Turkish and Polish migratory experience in Germany and from the case of Mexican migration to the United States.

The paper is organized as follows. In the next section we briefly discuss why people migrate and remit and we outline our argument. In Section II we present the opposing cases of Polish and Turkish migration to Germany, the former being a clear example of “more migration, more remittances” and the later an example of “more migration, fewer remittances”. In Section III we ask if the Turkish migratory pattern, and the fact that Turkish in Germany have evolved from remitters to savers, could be an effect that is starting to happen to Mexican migrants in the United States already. Finally Section IV explores some policy implications and concludes.

## **I - Why People Migrate and Remit?**

Thousands of pages have been devoted to answer the very simple question: why do people migrate? There is no single satisfactory answer as it is evident to see that people migrate for many different reasons. In fact, the push and pull factors that motivate people to move from one place to another may vary by migratory system, depending on the circumstance people migrate for economic, political, and even environmental reasons. Push factors that prompt individuals to migrate include economic crisis, disparities in income and opportunities, political and religious persecution, natural disasters, and population pressures among others. Some of the factors that pull people out of their countries of origin may include higher wages, better job opportunities, religious and political liberties, better standard of living, etc.

In the literature we find a significant number of theories that study the migratory phenomenon from various perspectives such as neoclassical economics, segmented labor market theory, world systems, social capital, and cumulative causation (see Massey 1999 for a theoretical review). In this paper, however, we center our attention to the New Economics of Labor Migration (NELM) (Stark and Bloom 1985). This theory centers on the individual as unit of analysis. Here researchers are concerned with individual values and future expectations of migrants and potential migrants.

The particular focus of this theory is on how the migration decision process is made. According to NELM migration decisions are not made in a vacuum by isolated migrants, but are made within families or even communities in order to maximize their future income and to minimize their financial risks (Stark and Bloom 1985). The question that arises now is, how does NELM help us understand immigrant remitting behavior?

Several studies have concentrated on the remitting behavior of the migrants who send money home (Banerjee 1984, Cortina and de la Garza 2004, Durand et al., 1996, Lucas and Stark 1985, Osaki 2003, Stark and Lucas 1988). Immigrants remit for a wide number of reasons that can be encompassed into at least two conceptual perspectives. The first deals with remittances as inter-familial transfers for family maintenance and insurance (Amuedo-Dorantes and Pozo 2002, Durand 1996, Massey 1999, Lucas and Stark 1985). These include transfers for basic consumption and asset accumulation. The second considers remittances as particular and/or community-oriented investment in the home country (see Goldring 2004 for a comprehensive discussion).

In this paper we concentrate on the first conceptual category, that is, inter-familial transfers. In light of NELM migration theory, a common denominator that helps explain why immigrants send money home seems to be given by altruistic and non-altruistic reasons, which are sustained by an explicit or implicit contractual agreement between the migrant those family members left behind and sometimes between the migrant and her/his community of origin (Cortina and de la Garza 2004, Dustmann and Mestres 2007, Lucas and Stark 1985, Stark and Lucas 1988). Nonetheless, others have demonstrated that immigrants may also remit for “selfish”

In particular, some studies have argued that the most significant predictors that explain why immigrants remit are two: 1) having direct family members and/or children living in the home country; and, 2) having the expectation to return to the home country someday (Cortina, de la Garza and Ochoa-Reza 2005, Sana and Massey 2005). Somehow following this literature, others argue that altruism is going to be strongest in cohesive traditional families and weaker in nontraditional families with unstable bonds (Sana and Massey 2005).

In this section we have briefly discussed recent literature that attempts to describe the relationship between migration and remittances. We have argued that once an individual has migrated, he or she has an implicit or explicit contract to send money home to those family members left behind. Within this framework, we would expect that an increase in the number of migrants in period 1 would increase the amount remitted in period 2. This

relationship would be reinforced by the number of children and direct family members left behind. In other words, as long as new migrants have direct family members and/or children left behind, the overall number of immigrants that will be sending money home will continue to increase. In short: more migration, more remittances.

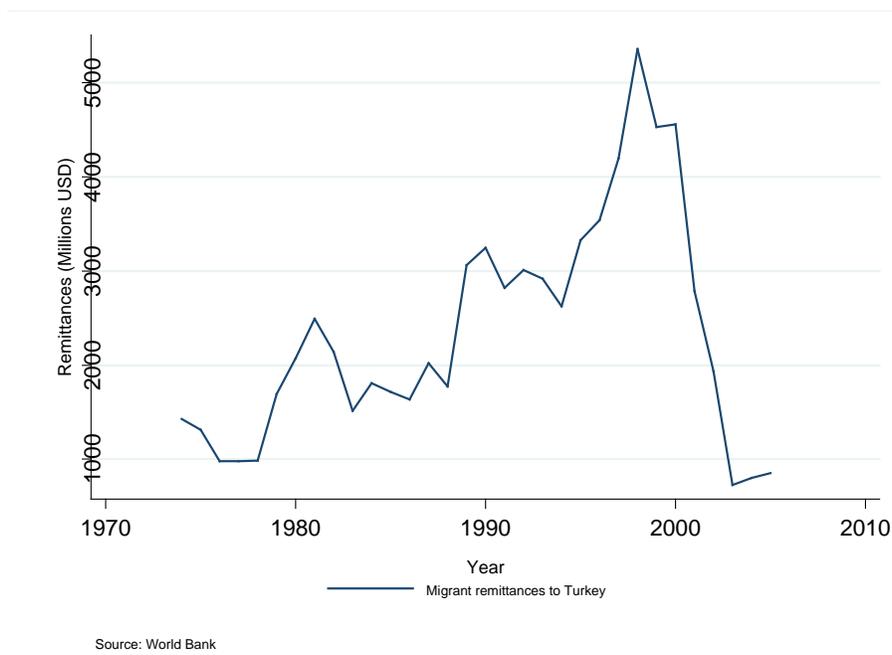
The question that begs to be answered then is – what happens once migrants' family members are reunited with her/him in the host country? Do immigrants continue to remit? If so, do they remit at the same rate? Some argue that given immigrant's transnational behavior they will continue to send money back home even if they have settled (Gillick Schiller 1999, Guarnizo 2003). We will argue that the opposite is true.

Once family members that had been left behind are reunited in the host country, the contract by which migrants and family members left behind were obliged becomes obsolete (Sana and Massey 2005). Migrants then will stop remitting to the home country or at least will substantially decrease the frequency and amount sent home (Sana 2003 for the Mexican case). This of course does not mean that migrants have reduced its level of income. This means that instead of remitting, immigrants will now increase the level of savings they hold in their host country. They have transformed, indeed, from remitters to savers.

## **II - Migration and Remittances from Turks and Poles in Germany**

The German case offers an interesting puzzle to the academic literature on the relationship between migration and remittances, especially as the cases of Turkish and Polish immigrants are analyzed in comparative terms. Turks have been the largest population of non-nationals living in Germany for most part of the last three decades. Still, although the Turkish population has been increasing almost for every year since 1973, their remitting behavior has not behaved as predicted. Remittances have grown somehow consistently for most of the decades of the 1980's and 1990's, reaching a high mark of 5.5 billion dollars for the year 1998. Since then, however, remittances have fallen in a stagger way amounting to less than 1 billion dollars for 2004. This is almost half of the amount that Turkish immigrants in Germany remitted back in 1985, which was then 1.8 billion dollars. This is a bigger puzzle, indeed, as we realize that almost 2 million Turks in 2004, were remitting nearly half of what less than 1.5 million Turks were remitting twenty years before, back in 1985 (see Figure 1).

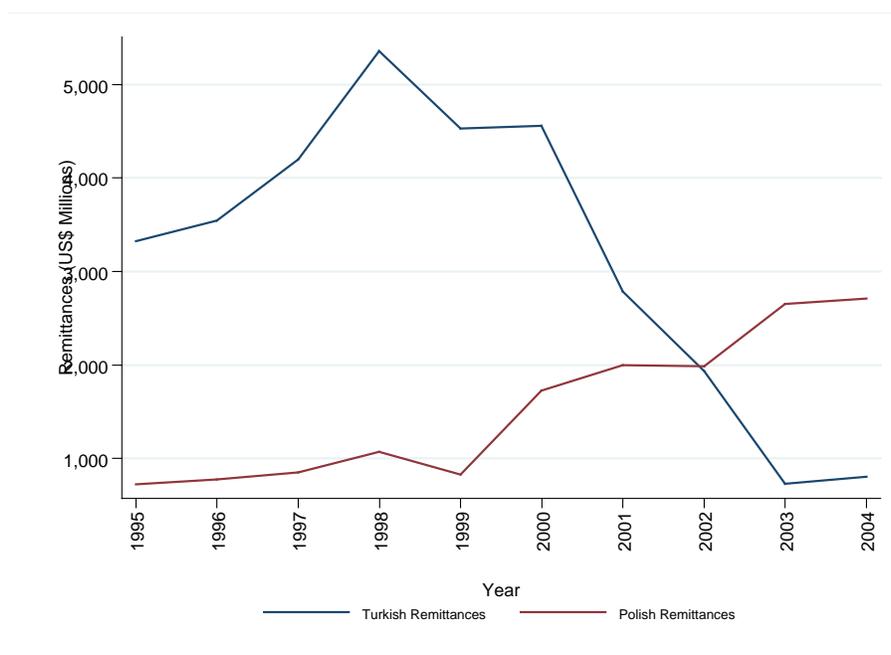
**Figure 1. Remittances from Germany to Turkey by Year**



What happened to the remitters? Where is the money? Are Turks becoming very poor in Germany or have they evolved from remitters to savers? If so, how this happened and why?

In the opposite end of the comparative trend, Polish immigrants in Germany were remitting 1 billion dollars in 1998, this was only one fourth of what Turkish immigrants in Germany were remitting in that same year. By 2004, however, this numbers had changed. In 2004, 350 thousand Polish in Germany were remitting 2.8 billion dollars (see figure 2).

**Figure 2. Turkish and Polish Remittances by Year**



This amount was almost three times the total amount of Turkish remittances for that year, although the Polish population in Germany was only 18 percent of the total Turkish population. All in all, it seems that for the Polish case, more migration has meant more remittances, but for the Turkish case in the last decade, more migration has meant fewer remittances. What explains these opposite effects?

### ***Immigration Policy Matters***

Germany -despite the evidence- used to envision itself as a country in which immigration played no role. In a multi-quoted academic nutshell: “Germany was not a country of immigration” (Green 2003 for an extended list of sources. See also ICMG 2001). This belief was demystified in 2001 by a governmental commission that addressed the German immigration phenomenon (See ICMG 2001). To begin with, Germany has had several recent waves of internal migration. Since 1945 and up until 1961 there were around 11 to 12 million ethnic German expellees and refugees from the lost eastern part of the Reich and from the German Democratic Republic (Castles and Miller 2003, Oezcan 2004).

Secondly, and more important for this paper, Germany has also had several waves of foreign migration in the past half century. In the mid 1950's the German Government began to recruit foreign labor through bilateral guest worker programs as Germany's economic miracle was in need of additional labor force. These programs were

established with Italy, Spain, Greece, Morocco, Portugal, Tunisia, Yugoslavia and most importantly Turkey. Consequently, the number of foreign workers in Germany increased substantially in the following two decades. By 1956, there were around 95,000 foreign workers in Germany. Almost twenty years later, in 1973, this number had climbed to 2.7 million (63% male, 47% female). After two decades these program came to an end. Since November 23<sup>rd</sup> 1973, no permanent labor recruitment from outside the EU has been permitted in Germany (Castles and Miller 2003).

Working programs had different specifications but generally they granted temporary work permits for an individual for a period of one to two years. At the end of this short stay, guest workers were then required to return to their home countries so that new workers could come in. The rationale of the “rotation principle” was twofold: first, to prevent immigration settlement in Germany; and second, to expose to industrial work the largest possible number of workers from sending countries (Oezcan 2004). The guest worker program also established special restrictions such as limited labor and social rights, no path to citizenship, and no formal mechanisms for family reunification. Despite the formal rules and the restrictive design of the labor programs, many of their beneficiaries (especially Turkish guest workers) decided to stay in Germany permanently (Bauer et al. 2005). Moreover, despite immigration restrictions, new immigrants continue to arrive to Germany in the following decades.

Once the working programs had been suspended, the path for new Turkish immigrants to Germany was reduced to two options: seeking asylum and applying for family reunification. On the other hand, for those Turkish workers who had decided to stay in Germany after their working programs had come to an end, the path for naturalization was mostly closed.

In 1977 the *Guidelines on Naturalization* (Einbürgerungsrichtlinien) were enacted, which explicitly defined naturalization as an exceptional act. The policy of the German state toward its immigrants followed the notion that “Germany was not a country of immigration”, so the logic behind immigration policy was to request the immigrant to integrate first and to apply for naturalization second.

In that order of ideas, dual citizenships were established as an exception. The rule was that immigrants were required to surrender to their original nationality in order to achieve the German one. This policy, in addition to the requirement of 10 years of residence previous to application and a high monetary fee for the bureaucratic process, proved to be too much of a cost for those who were applying for naturalization.

The restrictive *Guidelines on Naturalization* worked as planned. "As late as 1988, when over 60 per cent of Turks had residence periods of at least ten years, the proportion of Turkish citizens gaining citizenship each year (the naturalization rate) was an almost unbelievable 0.08 per cent (Green 2003, p. 239).

In addition, following a longstanding tradition back to the Prussian Empire, the German state did not recognize citizenship as a birthright (*Jus Soli*), instead the mechanism to achieve citizenship was through *Jus Sanguinis*, this is a right by which nationality or citizenship can be recognized to any individual born to a parent who is a national or citizen of that state. The outcome of this tradition was that by the end of 2000, over 700 thousand Turkish children born in Germany were not German citizens. (If we include other nationalities, approximately 1.6 million inhabitants in Germany were still non-nationals, although they had been born in Germany).

New immigrants faced problems of their own. Asylum seekers soon found out that Germany was a more difficult point of entry than other European countries. A high number of Turks applied for asylum following the coup d'état in Turkey in September 12<sup>th</sup>, 1980. At the time, German bureaucrats had the suspicion that a high number of applicants were not genuine political refugees but they were trying to get around the 1973 ban on labor recruitment (Pirkl, 1982). However, one must point out that although Turkish asylum seekers had their request frequently denied, they were not sent back to Turkey. German law allows for Temporary Humanitarian Residence permits, which could then be renewed. This became an additional way for Turkish immigrants to stay in Germany and begin their process of integration.

Altogether Germany's immigration policy produced an irony. On the one hand, Turkish (as well as other nationals) had a very difficult time either obtaining German citizenship or receiving political asylum. On the other hand, the legislation was not strong enough to expel Turkish citizens from German soil on a recurrent and significant way. Moreover, as working permits and residence requests were two different bureaucratic processes, which were allocated independently from each other, although Turkish immigrants were not receiving naturalization or asylum status, it became possible for them to achieve a working permit or a residence permit, which will then allow them to stay in Germany somehow legally.

In addition, all benefits from the German welfare state, besides income support, are allocated to inhabitants regardless of their nationality or immigration status. These benefits created a safety net for Turkish immigrants while they struggled through their

process of assimilation. Finally, as a byproduct of an *Association Agreement* that Turkey signed with Germany in 1964, and an interpretation by the European Court of Justice, Turkish citizens enjoy the same protection from expulsion as EU nationals (Green 2003).

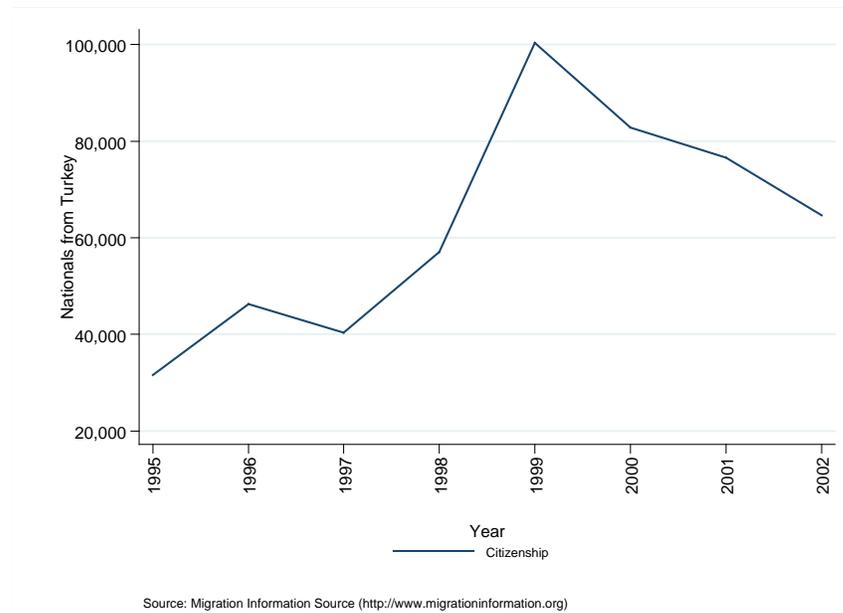
Overall by 1990, seventeen years after the last Labor Program came to an end, there were around 1.7 million Turks living in Germany, many of which had been residents for an extended period of time or have been born in German soil. In this same year something was about to change dramatically. In 1990, the *Foreigners' Law* (Ausländergesetz) was enacted which made it easier for family reunification and for naturalization to be approved. This shift in immigration policy would prove to change in the next decade the dynamics of migration and remittances of the Turkish community in Germany.

The 1990 *Foreigners Law* established the requirements under which dependants may immigrate to Germany in order for families to reunify. These were mainly three:

1. Spouses are allowed to immigrate if the pioneer migrant has a full residence permit
2. If the resident is able to provide for the whole family
3. If there is adequate living space (12 square meters per person aged six or above)

In addition, minors were allowed to immigrate to join their non-German parents up to age 16. Moreover, before 1996 they were granted visa-free entry and were exempt from holding a residence permit (Green 2003). Naturalization was also benefited from the 1990 *Foreigners' Law*. A simplified naturalization procedure was enacted for those with over 15 years of residence or for non-nationals aged 16–23. All these changes did lead to a significant increase in naturalizations. From 1993 onwards the naturalization rate for Turks has consistently exceeded that of the non-national population as a whole. Indeed, from 1995 to 2002, almost 470,000 Turks were naturalized, compared to just 14,600 for entire period between 1972 and 1990 (see Figure 3).

**Figure 3. Acquisition of Citizenship by Nationals from Turkey**



In general, birth in Germany does not confer German citizenship if neither parent is German. However, children born on or after 1 January 2000 to non-German parents acquire German citizenship at birth if at least one parent:

- Has a permanent residence permit (and has had this status for at least 3 years); and
- Has been residing in Germany for at least 8 years.
- Such children will be required to apply successfully to retain German citizenship by the age of 23. Assuming the laws are not changed prior to 2023, they will normally be required to prove they do not hold any foreign citizenship.

In 1993 the Asylum law was reviewed to become even stricter. New Turkish immigrants have a tougher time getting in, unless they are coming in the process of family reunification. In 1997, for example, Germany sheltered 254,000 refugees from the war in the former Yugoslavia, 95,000 "quota refugees" (Kontingentflüchtlinge) from other crisis regions, and 360,000 de facto refugees who either had not applied for asylum or were allowed to remain in Germany on humanitarian grounds after their asylum applications had been turned down.

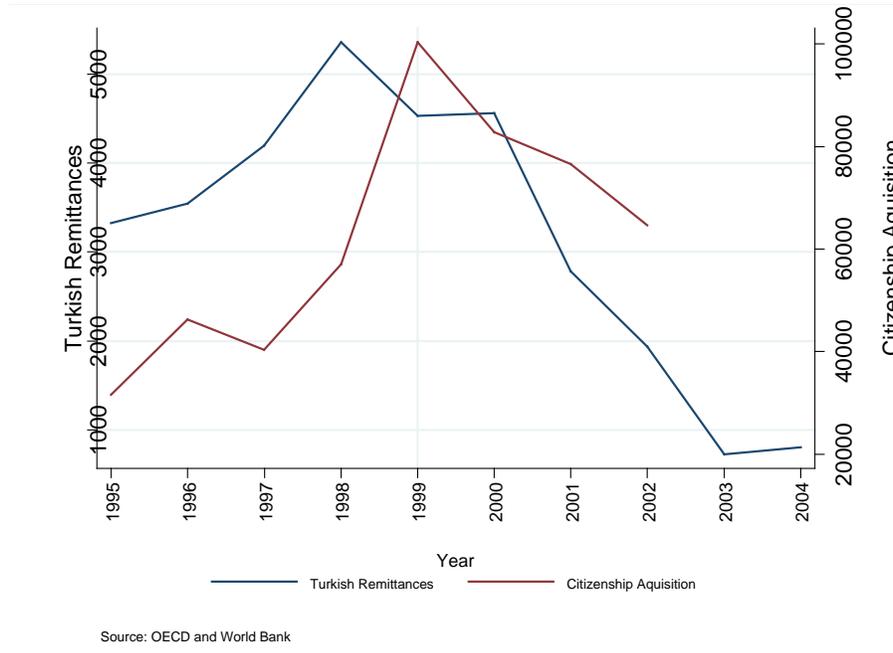
Family reunification has been strictly controlled, and Germany's recognition rates for asylum seekers are generally much lower than in other high-volume asylum destinations. Thus gross immigration of Turks has almost halved from over 80,000 in 1992 to 48,000 in 1999. Moreover, at the end of 1998, for example, 45.7 percent of the resident aliens holding Turkish passports were women and girls, which we presume are mothers and daughters of first wave immigrants.

We argued in the first section of this paper that there are two main characteristics of why immigrants remit. First, immigrants are more likely to remit if they have a family member that has been "left behind" in their home country. Second, immigrants tend to remit more if they have the intention to "go back home" in the future. As family reunification and naturalization increased in Germany the two main reasons behind migration have been reduced. On the one hand, the family members who were "left behind" have left their home country and are now living in the host country with the original immigrant. On the other hand, naturalization does create an additional incentive to make the host country the new home country. Put it differently, there are less reasons for the immigrant to "go back home" now that he is a citizen in his residential country. As we can see in Figure 4, the level of remittances has been decreasing as the number of nationalizations has been increasing. Due to the reforms in the immigration laws, Turkish immigrants have become less prone to remit, as most of them have evolved from remitters to savers.<sup>1</sup>

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<sup>1</sup> As of this writing we are testing this argument by using data from the German Socio-Economic Panel (GSOEP) and waiting for the latest 2006 release.

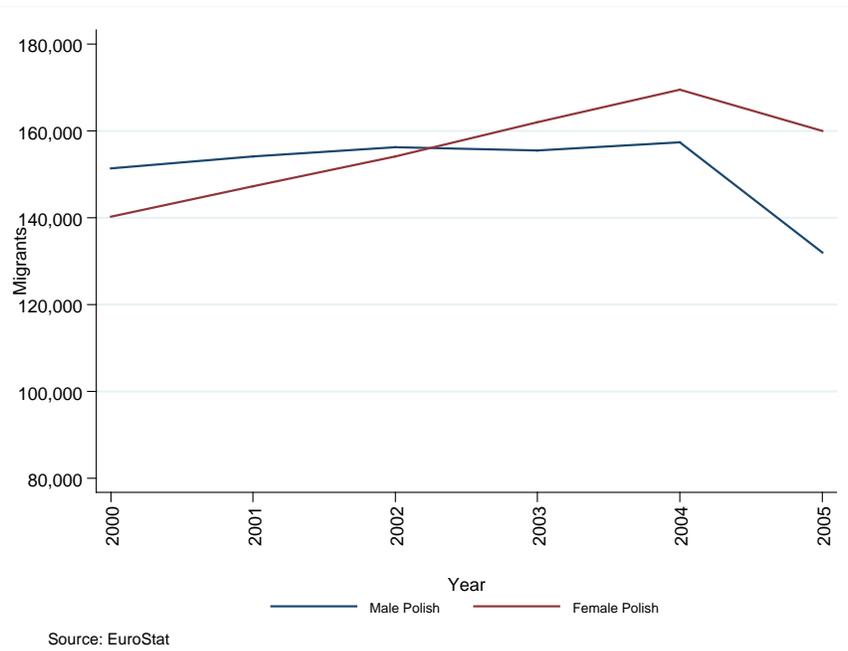
**Figure 4. Turkish Remittances (Left Y-Axis) and Turkish Citizen Acquisition (Right Y-Axis) by Year**



***The Case of Poland***

Similar to Turkish migration, Polish migration started at the beginning of the 1990s with a temporal guest worker program. This time the countries that were chosen were Yugoslavia, Hungary and Poland for geo-political reasons as well as to spur economic growth in the region (Oezcan 2004). In 2002, for instance around 374,000 temporary work permits were extended. Of these around 12% were for Polish contract workers and around 298,000 permits were issued for seasonal work, of which almost 240,000 were awarded to Polish citizens. When Poland became an EU member in May 2004, there were fears that the new EU citizens will promptly move to Germany and saturate the labor market and take advantage of the German welfare state. However as Figure 5 shows those fears were unfounded. The stock of Poles living in Germany actually decreased considerably in 2004.

**Figure 5. Stock of Poles in Germany by Gender**



### **III – Migration and Remittances from Mexicans in the United States**

Mexican migration to the United States has been the subject of a vast policy and academic literature (see Massey et al. 1994). Even though international migration from Mexico to the US is a longstanding historic dynamic, it was until the early 1940s with the *Bracero* (farmhand) program – a temporary guest worker program between the US and Mexico – that the current migratory system was born (Cornelius and Rosenblum 2005).<sup>2</sup>

The *Bracero* program started in 1942 right after the United States' entry into World War II. During the War, around 168,000 *braceros* were recruited to the United States as guest workers, the following decade from 1955-1960 annual *bracero* migration oscillated between 400,000 to 450,000 (Massey et al. 2002). At the end of the program “nearly 5 million Mexicans entered the United States a figure that dwarfs the combined total of legal and contract labor between 1900 and 1929” (Massey et al. 2002, p. 39).

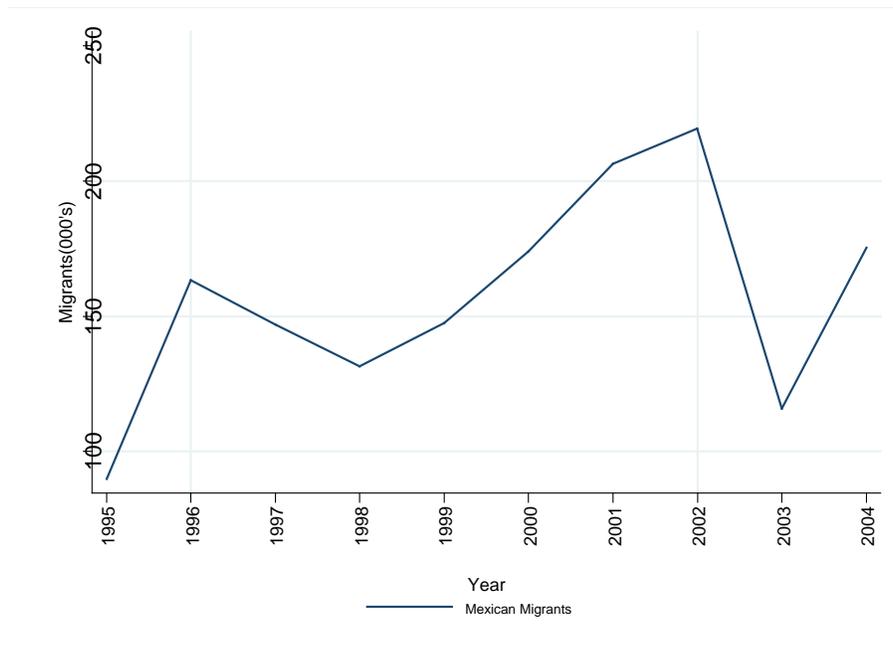
<sup>2</sup> It can be argued that “migration” from Mexico to the US started as early as 1848 with the signing of the Treaty of Guadalupe Hidalgo that ended the Mexican-American War (1846 – 1848) and through which Mexico lost more than half of its pre-war territory to the United States.

The *Bracero* program created new aspirations. Potential migrants in Mexico not longer attempted earning a predetermined amount of money through a fixed contract in the US and then go back to Mexico as soon as the contract was over. Moreover, potential migrants especially those who did not taste the American dream through the *Bracero* program sought to migrate in order to have access to some of the new consumption patterns that the program made available to some Mexican families (Reichert 1981).

In 1986 the US Congress passed a law in order to “fix” the immigration problem that started with the passage of the Hart-Celler Act of 1965, which abolished the quota system of the 1920s by eliminating nationality as and admission criterion. The Immigration Reform and Control Act (IRCA) was signed into law by President Reagan and took effect on January, 1987. IRCA legalized around 2.3 million formerly undocumented Mexican migrants that were already in the U.S. before January 1, 1982. IRCA allowed the newly minted naturalized US Citizens to bring their families legally from Mexico to the United States.

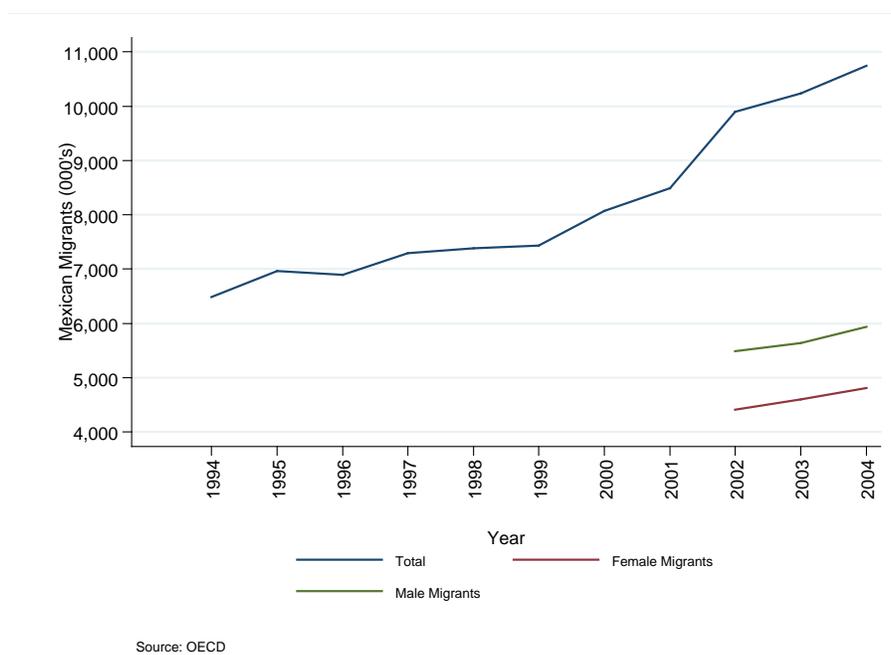
In 1996, the immigration law was reformed again. This time the law had tougher provisions such as including increases in criminal penalties for immigration-related offenses, it authorized increases in enforcement personnel and enhanced their enforcement authority. In addition, other acts of Congress (welfare reform and antiterrorism legislation) reduced undocumented immigrants’ access to social services and closed some opportunities to legalize their status. Right after the terrorist attacks of September 11, 2001, the US Congress passed the USA Patriot Act and the Department of Homeland Security put in place certain measures such as the Special Registration Program that had a negative effect on the immigration flows. Figure 6 shows that just after the 1996 immigration reform and in 2002 inflows to the United States of Mexican migrants decreased significantly.

**Figure 6. Inflows to the USA of Mexican Nationals by Year**



Historically, Mexican migration to the United States was mainly composed of single males; however, nowadays this is no longer the case. In 2005, one in every six Mexican undocumented immigrants was a child and one of every three was a woman. Altogether, the immigrant population is composed of 1.8 million children and 4 million women. The following figure (Figure 7) illustrates the total of Mexican migrants (documented and undocumented) in the United States for the 1994 - 2004 period. The figure illustrates a clear growth of Mexican born female immigrants in the United States,

**Figure 7. Total of Mexican Born Migrants in the United States by Year**

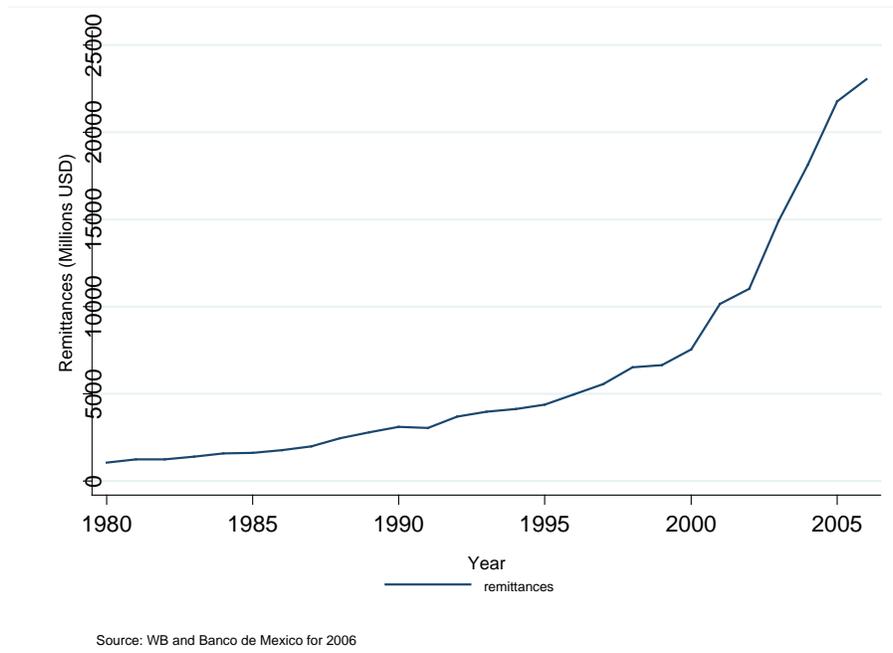


The question now is if the Turkish migratory pattern and its impact on Turkish immigrants' remitting behavior could be starting to happen to Mexican migrants in the United States? In other words, is there a change in the demographic composition of the migratory flow, as a byproduct of immigration policies in the United States, which could lead to more migration but fewer remittances?

The available data suggests three complementary phenomena. First, there has been a high number of family reunification as a byproduct of IRCA. Second, after the immigration reforms of 1996 it became increasingly more difficult to cross the border due to border control policies (Donato and Patterson 2004). Third, this has become even more so after September 11 and the enactment of the US Patriot Act. In recent years migrants minimize crossing back to Mexico and tend to stay for longer periods in the US. Are these changes in the migratory flow affecting remitting behavior?

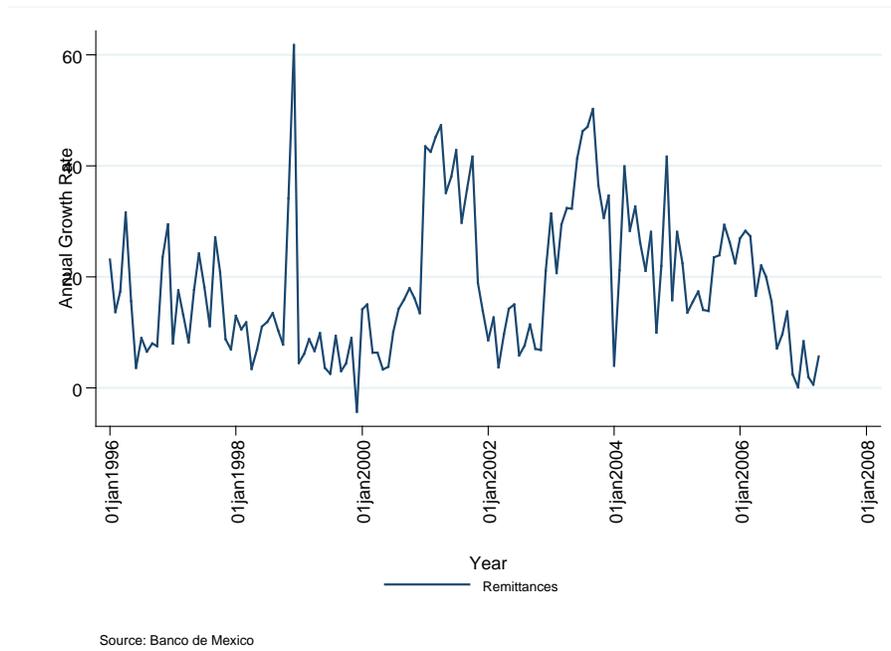
Remittances from the US to Mexico have been growing over the past decades. According to the World Bank and Mexico's Central Bank, between 1980 and 2006 remittances increased at a speedy rate and by 2006 they account for more than 22 billion dollars (see Figure 8). This amount of money is the highest flow of foreign currency to Mexico for the year, only second to oil revenues.

**Figure 8. Annual Remittances Flow to Mexico**



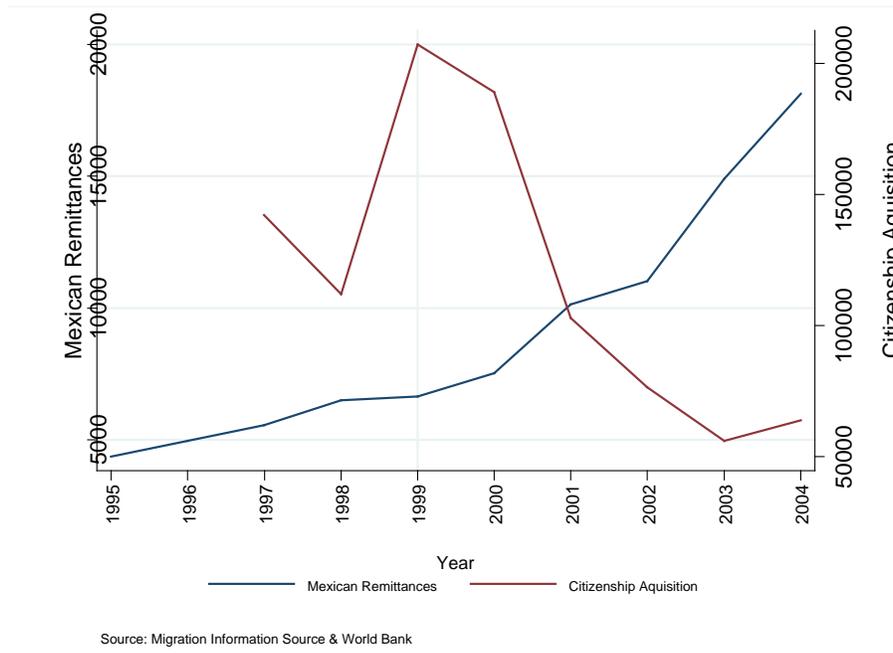
However, its annual growth rate reveals a very interesting pattern (see Figure 9). Remittances annual growth rate peaks and decreases in particular periods of time that closely follow Mexican naturalization rates. The relationship seems to be clear: as naturalization rates increase, the growth of remittances slows down or even decreases; likewise, as naturalization rates decrease, the rate of growth of remittances increases.

**Figure 9. Remittances Annual Growth Rate**



For instance, between 1986 and 1996 the naturalization rate increased significantly, however, as Figure 10 shows in 1997 the naturalization rate fell as “the cohort of Mexicans legalized under IRCA passed and the former INS bureaucracy staggered under the administrative load” (Massey 2005 pg.6). The administrative reforms implemented during the mid 1990s helped reduced the 1998 backlog and as a consequence the number of Mexicans acquiring citizenship once again increased significantly in the following year. It is worth noting that after 1999 remittances began to increase while the number of Mexicans acquiring citizenship began to decrease. Between 2000 and 2003 when number of Mexicans acquiring citizenship was importantly reduced, the amount remitted from the US to Mexico started to grow at a very fast pace.

**Figure 10. Mexican Remittances (Left Y-Axis) and Citizen Acquisition (Right Y-Axis) by Year**



Family reunification plays a double catalytic role. On the one hand, it reduces the demand for remittances, that is, family members no longer need remittances in the home country. On the other hand, family reunification reduces the supply of remittances, that is, migrants do not need to send money home as frequently and presumably not in the same amounts.

## Empirical Strategy

More migration, less remittances? How likely are remitters to become savers? As we have argued in the previous sections, a migratory flow of children and women, following family reunification policies, will potentially lead to a reduction of both the supply and demand of remittances. In order to show how this dynamic operates we need to investigate how immigrant's remitting behavior changes over time. One approach would be to create an experiment over time with a random sample of similar migrants randomly assigned to migrate with and without family. The random sampling and random treatment assignment (migrating with and without family) would allow us to estimate the average causal effect of the treatment in the population of interest, and regression techniques can be used to refine this estimate (Gelman and Hill 2006). More often than not, it is quite complicated to create a randomized experiment in the social sciences

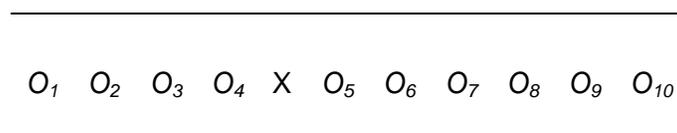
because of ethical and budgetary issues; however we can use thought experiments that enable us to create scenarios that would help us, at least, to ensure that the differences between treated and control groups, that is, that the differences between those who migrated with and without family, are in fact there, and are not caused by confounders or variables that our theory failed to take into account.

Using sample “B” (foreigners in the Federal Republic of Germany from 1984 to 1995), from the German Socio-Economic Panel Study at the German Institute for Economic Research (DIW) we will perform a quasi-experimental design (Shadish, Cook and Campbell 2002) to assess how immigrant’s remitting and savings behavior changes over time once family members are reunited in the host country.

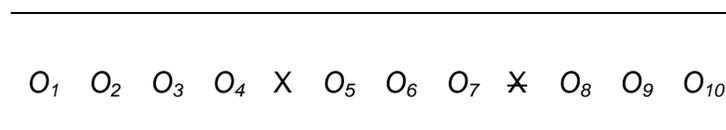
Given the longitudinal nature of the data it is possible to know the specific point in the series at which a treatment occurred, for example, the year on which the spouse is living in Germany and/or the year on which underage children are reunited with their parents in Germany. If this reunification had an impact on the amount of money send back home and/or the amount of money saved in the host country, the causal hypothesis is that the observations after treatment will have a different slope or level from those before the treatment.

The German Socio-Economic Panel Study (SOEP) allows us to implement at least two designs of the following form:

**Figure 11. Simple Interrupted Time Series**



**Figure 12. Removing the Treatment**



As previous research has noted individuals not only remit for altruistic reasons tied to family members left-behind so in order to control for possible cofounders we need to add equivalent no-treatment control groups to the preceding designs. To do so we will use

propensity score matching, which is the probability that a migrant receives the treatment given *everything* we observe before the treatment, that is, including *all* the confounding covariates for which we want to control.

The empirical design suggested in this section will allow us to include temporal aspects of the pre and post-intervention and gain important insights into immigrants' remitting and saving behavior.

## **Policy Implications**

The findings of this paper have important policy implications. First, migrant sending countries that may be starting to be or are already dependent on their Diasporas' monetary flows may start to see their remittances' based "developmental"<sup>3</sup> aspirations truncated by a deceleration of these flows as a by product of family reunification. Second migrant receiving countries, on the other hand, may benefit economically from family reunification given that at least some of the money that was sent home before is now spent or saved in the host country.

The positive and potentially negative effects of family reunification are most evident at the micro and macro levels, respectively. At the micro level, the obvious positive effect (that outweighs most if not all of the costs) is that families are reunited. Family reunification will eliminate some of the psychological costs that arise when families are apart. At the macro level, family reunification for sending countries would imply a loss in future human capital, especially when children get reunited with their parents. A considerably size of future generations will be leaving their countries of origin diminishing the human capital potential of migrant sending countries. This loss of human capital would translate into a gain for host countries, particularly for those countries in which the fertility rate is low. An inflow of women and children will have a positive impact in the labor market once these children are incorporated to it.

Family reunification may benefit migrant sending countries by relieving them from political pressures that may arise with the demands for the provision of public goods such as education and health. In contrast, for migrant receiving countries an increase in

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<sup>3</sup> Recently governments and international organizations have been devoting a lot of attention and resources to the potential link between remittances and development. One issue, however, that has not been fully discussed by governments and/or international organizations is the fact that remittances constitute a transfer between individuals for very specific purposes. So how can we turn these monies into what is commonly known as development?

the migratory flow may exert some pressures in the provision of these same public goods such as health and education. These pressures would be most evident at the local level, however, as previous studies have shown at the national level immigrants contribute more to the generation of wealth in the host country than what they may consume in public services (see for example Edmonston and Lee 1996, Fix and Passel 1994).

Finally, once families are reunited in migrant receiving countries, the need to send money home will decrease and thus, those migrants who once were remitters will become the new savers in their host countries.

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