

The Refugee Crisis and a Viable Alternative Approach

Raphael NTENTAS^{*}, Ioannis KALIENTZIDIS^{**}
Aristotle University of Thessaloniki, Greece

Abstract

It is globally known that the European Union is facing one of the greatest immigration flows in recent history, due to the prolonged crisis in the Middle East Area. Greece, being the closest entry to Europe, has been called to deal with a massive number of immigrants, and as it is sensible, many implications have taken place. This paper, from Greece's viewpoint, examines the cost for the management of the refugee flows and refers to its potential effects on the Greek economy. Based on specific articles of the European Treaties about Immigration and adopting a short analysis of the Solow model as a theoretical background, we propose an alternative viable solution to this situation and promote the benefits that may arise from the absorption of immigrants. The general idea is to exploit the massive power that the internet offers to humanity. Our proposal has to do with the creation of an online application which will have as a main function the analyzing of the immigrants' data and the distribution of these people to specific areas across the Eurozone where suitable job opportunities exist. This application takes into consideration the special needs, the characteristics and the preferences of immigrants and in this way contributes to the maximization of the social welfare. This essay includes the detailed description of our application and the strategic goals of such a venture. Of course, the application is open for the participation of non-European countries, which is something that we estimate as a sure fact, especially after the presentation of the incentives via our analysis.

1.1 Introduction to the recent Refugee Crisis

One of the greatest socioeconomic challenges, not only for the southeastern Europe, but for the whole world as well, is the current Refugee crisis. In this paper, we examine the refugee crisis from Europe's -with an emphasis in Greece's- viewpoint as it is considered to be the closest entry to Europe. Due to the prolonged crisis in the Middle East Area, one of the greatest immigration flows in recent history has been observed. At this point, it would be useful to refer to the origin of these great immigration flows in order to be able to examine the situation in a spherical manner. It all started in March of 2011 in Syria, when anti-government demonstrations began. The protests were peaceful, only until the government's violent crackdown, and then the rebels began fighting back against the regime. By July of 2011, army defectors had loosely organized the Free Syrian Army and many civilians of Syria took up arms to join the opposition. Since then, divisions between secular and Islamist fighters and

Contact addresses:

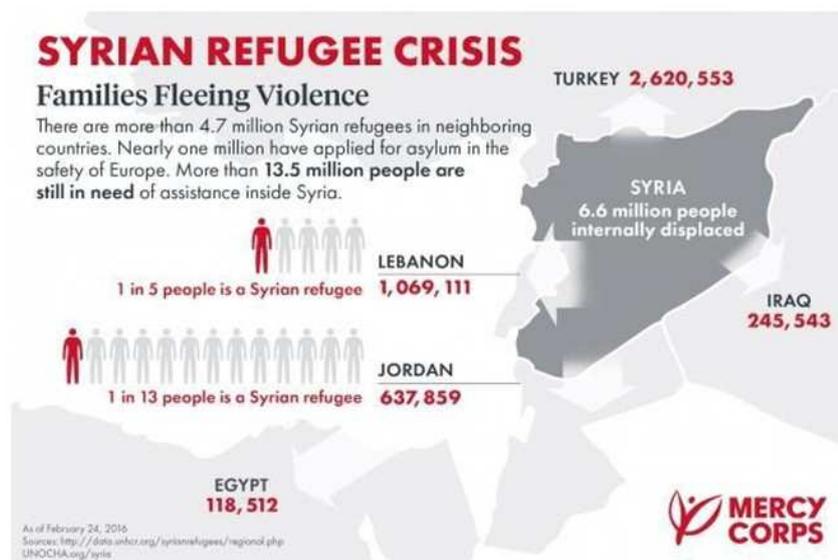
^{*} **Email:** rntentas@econ.auth.gr

^{**} **Email:** ikalientz@econ.auth.gr

between ethnic groups have been complicating the politics of the conflict. It all started as a simple civil crisis but it has been transformed to a series of terrorist acts.

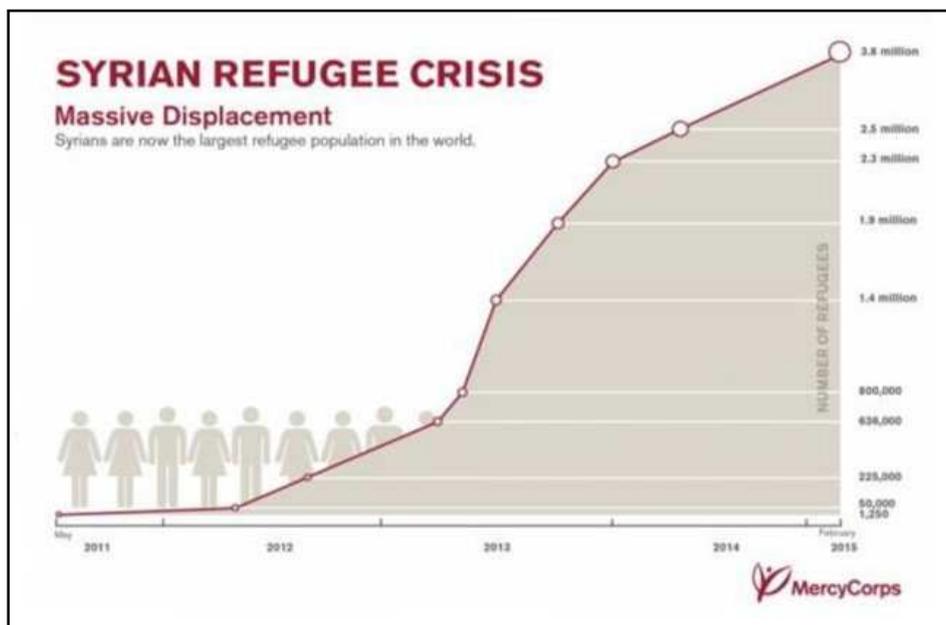
As it is sensible, the civilians of Syria, in their effort to flee violence, are immigrating in other areas inside or outside Syria. According to the United Nations Office of Humanitarian Affairs, more than 13.5 million people, including 6 million children, are in need of humanitarian assistance. Syria's civil war is the worst humanitarian crisis of our time as half of the country's pre-war population have been killed or forced to leave their homes. Some families are struggling to survive inside Syria, others are immigrating to neighboring countries or risking their lives on their way to Europe. But one fact is sure. Now is the urgent time for humanity to make use of the solidarity values that have been left and correspond to this socioeconomic challenge with the least possible social loss.

At this stage, we make use of some info-graphics powered by the global organization Mercy Corps in order to show the direction of the immigration flows and the size of the refugee crisis. The countries that have received the majority of the immigrants are the neighboring to Syria: Iraq, Lebanon, Turkey and Egypt. As these countries cannot deal with the massive number of the immigrants, nearly one million refugees have applied for asylum in Europe. In numbers, there is a total of 6 million people that has been forced to leave their country. And of course this number will gradually become even higher as the terrorist acts continue to take place. Turkey has received over 2.6 million immigrants and constitutes the final country before the entry to Europe. Every single day, thousands of refugees are traveling under very cruel conditions with the hope of finding a safe place to start their lives again from scratch.



According to recent surveys, Syrians are now the largest refugee population in the world. The diagram below makes clear the intensity of the refugee flows. During the middle of 2013, a very steep increase of the incline that is referred to the refugee flows can be observed. Since then, the flows have been allotted better in the time periods, but the number of immigrants leaving their country is getting worryingly higher. All policy makers agree that the situation needs to be dealt with the

cooperation of nations as the origin of this whole situation does not seem to stop the terrorist acts in the short-term period. The number of immigrants cannot be absorbed by 4 or 5 countries. A viable solution needs to be implemented in order to alleviate the situation and deal with the massive displacement of a whole nation. The infographics used, are the proof to the size of this crisis. It is a vital need of every nation to help in alleviating the crisis and offer to these people, who have suffered a lot of cruelty, the opportunity for a normal life with hopes and dreams.



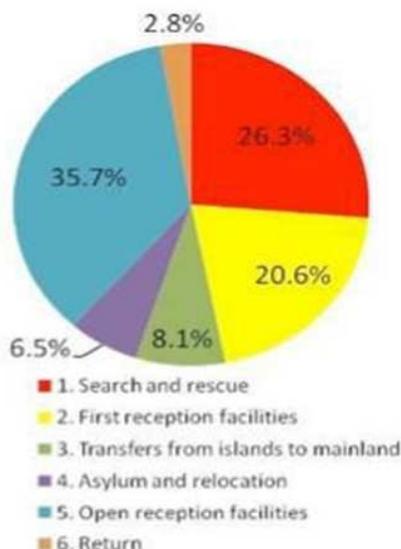
As we have already introduced the readers to the situation that stands around our analysis, it would be useful to refer to the cost, the effects & the macroeconomic outcomes for the European country that constitutes the closest entry to Europe for these refugee flows, the country of Greece. As we have already mentioned, the refugee flows are directed to the European area, as they consider it to be the suitable one for starting a new life.

2.1 The Refugee Crisis' Cost on the Greek Economy

Economists say that it is very difficult and sometimes impossible to estimate the exact cost of a crisis with an intensity like the current one; because it is not just about numbers. It is about something more. There are human lives inside the economic model that have to be estimated. Nevertheless, we will try to estimate (choosing some parts of the total cost) how the Greek economy has been affected by the refugee crisis. After taking into consideration that Greece is suffering, since 2009, because of the great economic crisis, we observe that the refugee crisis has created additional problems in the already fragile Greek economy. The Greek government had and has to take measures in order to help these people, always under the economic restriction of the governmental budget.

2.1.1 The fiscal cost for Greece

According to the Greek Minister of Foreign Affairs and a research of the Central Bank of Greece (CBG) (published on 17 December 2015) the cost of managing -only for the Greek case- the refugee crisis is an estimated amount of 600 million euros, or 0.3% of Greece's GDP (a prediction for the economic year of 2016). Those 600 million euros are directed to research and rescue, first reception facilities, transfers from islands to mainland, asylum and relocation, open reception facilities and returns. The following tablet shows the exact direction of the funds that are going to be managed by the Greek government in an effort to alleviate the refugee crisis in 2016.



Source: www.huffingtonpost.gr

2.1.2 Some detectable consequences on the Greek economy

The refugee crisis has also affected the islands that are in close proximity to Turkey. More specifically, the islands of Dodecanese archipelago and the well-known islands such as Chios or Lesbos have been dramatically affected. According to Mr. Pericles Antoniou, the president of the Hotel Association of Lesbos, the room reservations have been reduced by almost 90% comparatively with 2015. Similar data come from Kos with the president of the Hotel Association of the island, Mrs. Konstantina Svinou, saying that they are facing a 36% reduce in room reservations. In Chios there is a 60% reduce and in Samos a 40% according to Mr. Kostas Kiriatzis. Despite the facts stated above, SETE (The Greek Union of Tourism Enterprises) and its president Andreas Andreadis are claiming that, despite the fragile economic situation, the arrivals have been increased; and the total revenues from 14.2 billion, in 2015, will reach 15 billion euros in 2016, a fact that will contribute to the creation of 15.000 job opportunities. As a result, we understand that the refugee flows affect both positively and negatively the Greek economy. The field of tourism, which is considered to be the most crucial one regarding its contribution to the national GDP, will both gain and loose from this situation. At the end of the day, although, it seems that the benefits overcome the drawbacks and new opportunities have taken place.

2.2 The EU's contribution to the management of the refugee crisis

In this crucial situation EU's reaction was very slow. The first estimations about the cost of managing the crisis have been repeatedly reforming and many believe that the cost will be even higher than the most recent estimated, as HSBC notice.

The EU financial support for Greece has two directions. The first one is the *Asylum, Migration and Integration Fund (AMIF)* and the second one is the *Internal Security Fund (ISF)*. AMIF promotes the efficient management of migration flows and the implementation, strengthening and development of a common Union approach to asylum and immigration. ISF promotes the implementation of the Internal Security Strategy, the law enforcement cooperation and the management of the Union's external borders. The ISF is composed of two instruments, ISF Borders and Visa and ISF Police. AMIF has been awarded from the European Commission with 249.5 million euros and the ISF with 214.7 million euros for the period 2014-2020.

In March 2, 2016, the European Commission, due to the unpropitious situation, decided to fund Greece with an additional amount of 700 million, for the period 2016-2018, in order to be able to satisfy refugees' needs for food, shelter, access to clean water and health services. The management of these funds will be under the authority of UNCHR and NGOS. One part of these funds will be given so that 20.000 refugees can have their own shelter, a fact that will definitely give a positive impact in the local economy due to the multipliable effects of the "new money" inflows into the Greek economy.

The EU support, despite the primary slow reaction, was extremely significant for the alleviation of the problems that the massive refugee flows created. In this paper, one of the basic goals that have been set, is the promotion of the notion that the refugee crisis can only be dealt with success, with the cooperation between at least all European nations and a great number of countries that can absorb a significant number of refugee flows without many implications. At the next stage of the paper, a theoretical background is going to be set in order to complement our viable alternative proposal for corresponding to the socioeconomic challenges of the refugee crisis.

3.1 The theoretical background regarding our viable proposal

3.1.1 A social experiment

Before referring to the pure theoretical background of our alternative proposal, we would like to share the feelings that a YouTube video created to us while watching it. The name of the video is Momondo- The DNA Journey¹ and it is about a social experiment that aims to show that we actually have much more in common with other nationalities than we would ever think. Different people from around the world have been chosen in order to participate in a DNA test. All of them, are appeared to think that they surely derive from a specific nation on Earth. This test examines the DNA of the participant and results in the nations that the participant's ancestors came from. The results leave the participants speechless. It appears that all participants have some

¹ The link of the video is <https://www.youtube.com/watch?v=tyaEQEmt5ls>

DNA connection with countries that they do not appreciate or countries that they have never been to. This reference has been made to declare that humans know only a little about themselves and an ancestor of them could derive from Syria or a country that has suffered from violence. The general feeling that this video promotes, is to understand that people, no matter what race, age, sex or color they have, should behave to each other like they are family members. And that is what humanity needs to do at these difficult times, to show the value of solidarity and help in dealing with the problem of the refugee crisis.

In order to present our alternative approach to the refugee crisis, some theoretical data are going to be used as a sign that our approach is on the right direction. First of all, a series of macroeconomic outcomes based on the simple Solow Model are going to be presented for the region of Greece. But, it has to be noted that the outcomes are similar for the majority of the European and non-European countries.

3.1.2 A simple macroeconomic analysis

In the short term period, the basic macroeconomic effect from the refugee surge is likely to be a modest increase in the GDP growth, reflecting the fiscal expansion associated with support to the asylum seekers, as well as the expansion in labor supply as the newcomers begin to enter the labor force. The impact of the refugees on the medium and long-term growth depends on how they will be integrated into the labor market. International experience with economic immigrants suggests that immigrants have lower employment rates and wages than natives, though these differences tend to diminish over time.

Initially, the macroeconomic impact will be in the aggregate demand and in labor force. In the short term, because of the needs that immigrants have, some public spending is necessary as we have mentioned before. This will increase the aggregate demand, the GDP and is going to cause some effects on the inflation rates. Furthermore, there would be an expansion in the labor supply. At this point, we should also note that because of the high unemployment rate of Greece, the newcomers might face many difficulties especially on wages assimilation (Äslund and Rooth 2007). In order to over skip this difficulty, Greece can make use of European measures so as to help immigrants integrate in the labor force (f.e tailored introductory programs, reducing taxes, measures that lower barriers to entrepreneurship, access to financial services etc.)

In the medium and long run, the impact of the refugees on employment and the GDP will depend on: the speed of their integration in the labor market, the extent to which the newcomers' skills will complement or substitute those of the native labor force, and their impact on the allocation of resources, product mix, and production technology. In this way, it is easy to observe how important is for Greece, and in general for every country, the quick and right integration of those people. In Greece and generally in Europe, there is a huge problem because of the over ageing population. Immigration flows can help alleviating this problem with the parallel restructure of the insurance system as the European Commission suggests in its economic forecast for the fall of 2015.

Of course, the macroeconomic outcomes will be different for each and every specific country that is going to receive refugees. The basic and general outcomes, although, can be considered to be the same for the receiving countries.

3.1.3 Michael Kremer's Theory and a short analysis of Solow's Model regarding the current crisis

After this first introductory analysis, it would be useful to refer to the economist's Michael Kremer theory about the human conglomeration. Michael Kremer²² supported that the increase of the population in a specific area is the basic tool that can lead to the maximization of the economic welfare. The general idea behind Kremer's theory is that if an economy is constituted by more people, there will be more engineers, economists, physicians, entrepreneurs that will contribute to the increase of the innovation levels and the faster technological progress. Kremer uses some historical data as a proof about his theory. For instance, the worldwide industrial growth was much higher at the 18th century a.c., when the Earth's population was about one billion people, than the 5th century b.c., when there was an estimated of 100 million people on the planet Earth. This historical fact supports Kremer's theory about the correlation between the variables of population and technological progress. Characteristically, Kremer refers to the isolated Flinders island. In 1500 a.c., this island had the slowest technological progress reported on Earth, due to the very small population that lived there. Several years later, the human society of that island vanished as no technological progress or innovation took place.

Michael Kremer's theory included the very significant variable 'technological progress'. If technological progress is added to the simple Solow economic model, some very useful conclusions, regarding the refugee crisis, are going to appear. As it is generally accepted, if a nation's population suddenly increase, the GDP per capita will fluctuate to lower levels than before. But, if the human inflows contribute to the technological progress, the economy will return to the previous GDP per capita levels in the long run. What is more, there are great possibilities for an even higher GDP per capita. Consequently, it is clear that the refugee flows can even help the economy's boost and therefore lead to substantial growth levels. Recent surveys indicate that the majority of the refugees aged between 20-25 are highly educated. This is the human capital, that Solow thought for. These highly skilled people can easily be absorbed by nations that aim to grow. In this way, the refugee crisis constitutes an opportunity for the rest of the world, as they can take advantage of the highly skilled human capital that is immigrating. It is not irrelevant, the fact that the prime Minister of Turkey recently recognized many of the Syrians refugees as official citizens of Turkey. There is a plan behind this action, a plan of investing on these people and taking advantage of the possible benefits that may arise for the Turkish economy. Moreover, it is important to note that when the war is over, these people will try to return to their homes and rebuild their country and their economy. One can understand that trade

²² Population Growth and Technological Change: One Million B.C. to 1990, Michael Kremer, Quarterly Journal of Economics 108, August 1993: 681-716

relations might be created between the countries that received immigrants and Syria, when this crisis is over. Consequently, there is an extra incentive for the countries who want to achieve the long term benefits of possible trade relations with the immigrants that will return back. But at this stage, the previous statement sounds unimportant. For this reason, we would like to present an additional reason for why the nations should help relocating those refugee flows. It is a reason that has to do with the human nature. When a person goes through a lot of difficult times, he/she gets stronger; and these people have suffered a lot. So, we take for granted that these people are going to make their best possible efforts to succeed in the job opportunity that they will be given. Unless they succeed, they might go through the same difficulties again, the difficult time of immigrating. In this way, if one examines it macro economically, these great working behaviors will definitely lead to the better function of the economy. The short analysis above, suggests that these refugee flows are not going to harm the economies and the social welfare of the receiving nations. The exact opposite might happen, if we (the rest of the world) invest on these people and give them the opportunity to live again a normal life without violence or war.

As it has been stated, this chapter is the theoretical basis of our alternative proposal. It is a chapter that fortifies our belief that the refugee flows should be seen as an opportunity and not a threat. In the meantime, a reference on some European Treaties, that are basic for the viable function of our approach, is going to take place.

3.1.4 The principle of Solidarity & the EU-Turkey Treaty

First of all, it should be stated that the following article of the European Treaty that was signed in Lisbon, Portugal, constitutes a core clue of our theoretical background. The Article 80 of the Treaty on the Functioning of the European Union states that the policies of the Union and their implementation shall be governed by the principle of solidarity and fair sharing of responsibility, including its financial implications between the Member States. Whenever it is necessary, the Union's acts should contain appropriate measures to give effect to this principle. This Treaty notes that the European Union should act as a Union while forming its policies. The European policy about immigration and external safety, according to this treaty, has to promote the fair sharing of the burden of this situation. Not only Greece, or Italy and Germany are supposed to carry the burden of the refugee crisis, but every EU member should contribute.

The proposal about a worldwide treaty about migration is something that could be examined at a time. Solidarity needs to be a synonym value of humanity; and at this frame, a worldwide treaty about immigration, just to remember that the majority of the nations have once experienced a war or a negative situation, should be signed.

To continue, another Treaty which is also fundamental about the implementation of our proposal is the most recent one between the European Union and Turkey. As we observed at the info-graphic at the beginning of this paper, Turkey is one of the countries that have received the greatest refugee flows so far. The collaboration between the Union and Turkey is crucial about the management of these flows. Greece, being the closest entry to Europe, plays a key role as well. On the treaty, it is

stated that all the illegal refugees that have entered the European Union area will be sent back to Turkey and an equal number of legal refugees will be received. This Treaty is very significant for the legal control of the flows. Our proposal is created on the basis of these two Treaties, as the refugee flows have to be controlled. Furthermore, Turkey in collaboration with Greece and the Europol agency need to cross examine the data of the refugees in order to avoid the reception of people who want to harm the rest of the world. Turkey plays a significant role in the legal part of this situation, and needs to collaborate with Europe and the rest of the world in order to alleviate the refugee crisis.

The treaties are taken as granted and at the next chapter we are going to introduce the reader to our viable alternative proposal about the refugee crisis.

4.1 The introduction of our viable alternative approach

Isaac Newton, who is considered to be the father of classical physics, once said: 'If I have seen further, it is because I have been standing on the shoulders of Giants'. As Newton used as a scientific background the existing theorems of other excellent physicians, so we do. We take into consideration the existing technology and knowledge so as to create an application that can lead us a step further in our effort to alleviate the situation caused by the intense refugee crisis. For instance, in the process of thinking about our innovative idea, we came across with some applications that move to the same direction as we do. Our viable alternative approach exploits the opportunities that the world wide web offers to the humanity and aims to decrease the implications that are caused by the recent refugee crisis.

As it has been already implied, our approach has to do with the creation of an online/offline smartphone application which is called **HOW. Humans Of the World** is a smartphone application directly connected with a strong data processing system. On the one side, this data processing system uses the specific personal information that are asked to the refugees arriving at the hotspots and generates a graphic that shows the employment prospects of each immigrant. The system also takes into consideration other useful information for each and every immigrant. On the other side, the data processing system includes job offers from the whole European Union and the other countries that want to participate. These job offers originate from the private and the public sector of every country and are inserted to our system with the form of keywords. Finally, the system analyzes the supply and the demand of the working positions and leads to the most suitable match for every different occasion. The important innovation stands behind the fact that the refugees are going to be placed in working positions not only by examining the factors of supply and demand but also by taking into consideration their specific preferences and needs. In this way we will be able to discuss about the maximization of the working performance of these people and consequently the maximization of the social welfare. When the match is achieved, the refugees are notified by the application and that is when we pass to the phase 2 of our application's potential. The refugee that has been selected to move to a specific region of a receiving country, selects the name of the country in

our application and then a huge amount of information separated into useful categories appears. The extraordinary is that via our application, the refugees can immediately start learning the language of the receiving country or even get informed of the voluntary institutions that offer language courses. Other categories such as history, culture, customs, food, special discounts, entertainment, important information for the country and many others are included. The detailed description of what the application includes is going to follow to a next chapter. Our smartphone application, exploits the power of the information systems and the internet and suggests a new way of dealing with the refugee crisis. The vast majority of the refugees are acquainted with technology, and we should take a great advantage of that fact. Our smartphone application collects data, both from the positions that are offered and the immigrants, proceeds to the best possible matching of the above data and then helps the people integrate as soon as possible to their new home.

Critics might say that there are not sufficient working positions inside Europe even for its people. At this point comes our theoretical background which is referring to the principle of solidarity for the members of Europe, the EU-Turkey treaty regarding the identification of the legal immigrants, and the theorems of Solow and Kremer about the benefits of integrating these people. Europe and the countries that want to participate in the programme need to invest to these people in order to deal with the situation in the most appropriate way. An answer to critics could be that if we do not try to offer a solution to the refugee crisis, this whole situation might transform to something really negative for our world. For instance, the levels of the illegal migration might increase without a similar precedent and anarchy might prevail. As we-the economists- say, uncertainty is a very serious impediment for the stability and growth of our economies. It is better to know the fluctuation of the possible outcome, rather than anything at all. We believe that the efforts to control this crisis and the cost of implementing the suitable policies is by far lower from the cost of just watching at what this crisis might transform to. As a result, governments need to act in perfect collaboration and our smartphone application can be the tool that is missing in these difficult times.

4.2 The first phase of our application's function

There are two important phases regarding the function of our application. The first phase covers a time period of 30 days after the arrival of the refugees at the hotspots of each country. The second phase of our application's function will accompany the refugees until the very exciting moment of their complete integration into the receiving country's population. In this chapter, a detailed description of the first phase is going to follow.

The refugees arriving at the hotspots are requested from the local authorities to download the application on their smartphones in order to follow a specific process (*The minority that is not acquainted with technology will be guided by the teams that are liable for the management of the refugee flows). After this very early step, every person will be asked to state his/her basic personal information. Name/ Surname/

Age/ Religion/ Family status and the reason of immigrating are the first information that have to be put into the application's system. At this point, the identification's short phase will follow. A significant clue that has to be denoted is that the data processing system of the application will be in close collaboration with the Turkish information systems. Here, the EU-Turkey treaty plays a key role, as the information that are sent from the Turkish authorities have to be accurate and real in order to be compatible with the data that each person states. *We use Turkey as the main entrance of the refugee flows because the official statistics show that the majority of the refugee flows passes through Turkey to immigrate. That is why the EU-Turkey is so important for our application's implementation and we consider it as a background. Turkey will ensure the fact that the immigrants arriving at the European hot spots are legal and have completed the required papers in order to migrate.

Having taken the above for granted, the refugees will wait until the identification of their information in order to move forward with the procedure. The application will let them know when is the time to state some more detailed data about themselves. For instance, each person will have to state the level of the foreign languages that he/she knows, their working experience until that time, the desired field of work out of some specific options, their hobbies and the adjectives that characterize them better via an 1-10 scale with again some specific options. This step is going to be like a keywords curriculum vitae which is going to be put in the data processing system. After the final submit of the above information, the application generates a personalized graphic that shows the employment and life prospects of each refugee. Then is the time of accepting or denying the results that have come up. Once the graphic is accepted, the refugees can move forward with the procedure. If the results do not represent suitably the characteristics of the person, the process has to be repeated with the help of the refugees' management team this time. When the personalized graphic is accepted, the system is headed to a time period of analyzing the data.

In the meantime, the refugees need to stay at the hotspots for the maximum period of the 30 days. This time period is considered sufficient so that the system analyzes the data and proceeds the best possible matching of the working positions. Every basic need is covered by the funds that are raised annually for the alleviation of the situation. The EU, the USA, Russia and many other countries offer a specific budget out of their GDP in order to help these people. In these 30 days, the role of the NGO is also significant. Beyond the basic needs, there is the need of entertainment especially for the young ages. The NGOs are officially registered in the App and in this way the governmental funds are not being wasted to organizations that want to exploit the situation and make money. The official information is being promoted via the app and that is how we offer a solution to the problem of misinformation. These initial 30 days at the hotspots are the time before the beginning of a new life.

The data processing system uses the keywords that have been inserted for each and every occasion and concludes to a matching between the people and the working positions throughout the world. The use of the keywords is going to maximize the possibility that the refugees are going to be happy and highly efficient at the place that

they will be directed to. When the final matching is ready, the refugees are going to be notified by the application in order to step forward to the beginning of a new life. The refugees that have been matched with specific working positions are now going to choose the name of the country on the application platform and sign in as people that are in the process of integrating into this country. Then, a huge amount of information-separated into different categories- is going to be revealed regarding the receiving country. The time has come to move to the phase 2 of the application's function.

4.3 The second phase after the official matching

As it has been already mentioned, the refugees- after the matching phase- choose the country that they will be directed to on the smartphone application and sign in with an account. This registration will help the system recognize if the distribution is going well. At that point, the application will present some very useful categories with lots of information. For instance, there is a category that refers to the e-learning of the national language of each country. This category includes every detail from how to start a basic course to many advanced exercises for listening, writing and reading. There is an opportunity of e-learning the national language no matter what the level of the student is. This part of the app is one of the most crucial elements for the quickest possible integration of the immigrants and for that reason, it is going to be created in collaboration with official institutions and universities. The learning of a language can be achieved via this application.

Consequently, a lot of funds can be directed to other fields that need to be improved. A second category aims to collect all the information that are required for the accommodation and asylum proceedings. This category will be under the supervision of the Office for Migration and Refugees of each country. The communication between the Office and the refugees can also be achieved via the app. In this way, no inaccuracies or delays of the legal proceedings will take place. The application informs the refugee for the process that he/she has to follow. The bureaucracy of these proceedings will be significantly reduced, as long as the systems that support our app are in close collaboration with the European Security Authorities and Europol. This second category alerts the immigrants with every legal step that they have to take in order to be recognized as citizens of the country that they have been directed to. The power of the world wide web can reduce the delays that take place in such legal proceedings. A third category has to do with the life in the specific country. From daily practical tips to the rules of living in the receiving country. This category is a guide for the first months so that the refugees can adopt to the reality of the receiving country. It includes information and advices that every incomer should read. A fourth category has to do with the culture, the history and the values of the refugee's new home. Again it is a must for the best possible integration into the local community. An other category refers to the discounts and the special benefits that the refugees have, until they can stand again in their feet and contribute to the social welfare. In this category, the refugees can come across with the shops that collaborate

with the government and explore the services that they can use with a discount. Finally, without referring to the category of the voluntarism which is going to be analyzed in a next chapter, a very exciting category is the one that directs the users to a social network where the refugees will be able to exchange ideas, talk about their country or even organize events so as to make sure that their civilization and their customs will not get lost through the passage of time. This category-social network is an online platform-only for those who have already been signed in as refugees. This function of our app is very important so as we can show to these people a little respect for the difficulties that they are passing through as a nation.

The application, after the official matching with the working positions, is going to work as a local friend that answers to questions and shows the way to a normal life again. A useful e-tool that is going to reduce bureaucracy and increase the velocity of the refugees integration into the receiving countries' workforce.

4.4 The importance of Voluntarism in this process

We completely recognize the importance and the necessity of the cooperation between the state, the NGOs, the Institutions and every other volunteer; in managing and dealing with the crucial situation that stands in front of us. Many decisive steps have been made in the right direction, but there are yet a lot that should be implemented in order to tackle the situation efficiently. In countries like Germany (f.e) the deep cooperation between the state and all the other organizations, achieved to alleviate the problem that all the immigrants are facing after their arrival in any country. At this point we would like to point out that our app can be used as an operation center, in which all the NGOs and voluntary teams need to enroll so as a better management can be achieved. In this way the funds that are directed to the NGOs will not be wasted in teams that pretend to be voluntary but in reality aim to attract the governmental funds. A data basis with the official information about the NGOs and the voluntary teams is going to help controlling the direction of the funds more efficiently.

According to Olaf Kleist, a migration researcher at the German University of Osnabrück and Britain's Oxford University, there are four points that need to be part of an integration plan. Those four steps are: housing construction, education, work and civil society. Our application, in collaboration with the NGOs, the governments and the voluntaries will manage to cover the specific steps that need to be done. The importance of voluntarism, although, seems to be very significant in the process of welcoming these people to their new homes. Let us suppose that the official results of the matching have been announced and a specific number of immigrants are going to be established in Montpellier, France. Our app can be used as a communication key, as at that time, a message is going to be send to all the NGOs and volunteers that have previously registered to our app's system. This message includes information about the number of these people, the general basic needs of them and the exact time of their arrival. This communication key between the incomers and the NGOs will benefit both the immigrants and the NGOs, as the situation can be tackled with less delays and

better organization. Furthermore, the immigrants that are heading to Montpellier will be aware that there are some organizations which will help them after their arrival and at whom they could ask for help. Knowing that there is a well organized plan for the welcoming to a new home, is something that the refugees are going to appreciate. In this way, they will be pretty collaborative with the rest of the legal process, and that should be our goal too.

Voluntarism is a value which has been proved to be able to alleviate crucial and hard situations since many years ago. This smartphone application is a tool which can be facilitate both volunteers and the people that are in need of help. Better management can improve the function of voluntarism and lead to even greater results.

4.5 The assimilation period into the local workforce

In order to achieve the macroeconomics benefits from immigration, there has to be a quick assimilation into the native labor force. Our app is directing towards this path. The steps that need to be followed until the integration phase are clear. As soon as the matching is achieved, the refugees start e-learning the national language. They get relocated to specific places throughout the world and then the period of assimilation into the labor force starts. We consider that for the first 6 months, the financial obligations of the refugees for the services being offered, will be limited. This six-month-period functions as a transition stage to the new normal life. The costs of living are semi-funded by the international budget for the confrontation of the refugee crisis. The rest of the living costs are covered by the refugees' wages³ while they continue to learn by doing their new working obligations. We think that a six-month period is enough so that these people can adapt to the new circumstances and start offering to the social welfare again. This transition is not going to be easy, but a well organized plan with the complement of our e-tool can significantly reduce the delays on the assimilation into the labor force. The first days, at the new working environment are not going to be pressing. But with the passage of the weeks, the expectations will gradually become higher so as the six-month-period can seem as a realistic goal for a satisfactory assimilation. A programme is going to be followed in order to avoid any delays and offer to these people the opportunity to feel like home again. The programme is not going to be easy, but it is a must in order to achieve the expected results. By referring to a programme, we mean all those actions that need to be taken, from the national language learning to the asylum proceedings and the assimilation into the labor force. A programme can help increase the velocity of the integration plan. Consequently, the refugees will need to make their best possible efforts in order to keep up with the programme. In this manner, the delays that are sensible to exist in such a procedure, are going to be limited to the best possible levels.

³ The initial salaries are going to be less than the normal as the cost of living is semi-funded for the first six months. As the refugees learn their profession and evolve to the expected levels, the salaries will gradually get higher until they reach the normal rates. This could be an incentive for the refugees themselves, and we can make sure that they make their best efforts to integrate into the local workforce.

5.1 Conclusions

The smartphone application H.O.W. that has been presented thoroughly, consists of a mega e-tool that can help alleviating the refugee crisis. The economists, often base on specific assumptions in order to move forward with their economic models. The results that come up from their analysis are also based on these assumptions. These assumptions, in many occasions, are not sufficiently realistic. But the results that the economists lead to, seem to be very significant for the economic theory. In this paper, we use as a theoretical basis the principle of solidarity between the European Union members, the EU-Turkey treaty and the theorems of Solow and Kremer in order to fortify the fact that our application is moving towards a realistic path. These core clues could also seem as some assumptions. If they function well, then, our smartphone application is totally moving on the right direction.

Our model-application can be criticized as a very ambitious one. Given the fact, although, that there is no other organized plan regarding the whole integration process of the refugee flows, it can be considered as an excellent first step towards the creation of an EU plan which can be proved very efficient in the confrontation of the refugee crisis. This application can be considered as the plan that has never been implemented. Of course, in order to function well, there has to be a great cooperation among the EU members, Turkey, the countries that want to participate in, the security authorities such as Europol and the refugees themselves. This cooperation is feasible as soon as the governments and the people understand the importance of implementing such a plan. As it has already been mentioned, uncertainty is a negative factor for the global economy. This plan will control the situation and reduce the uncertainty levels at a great extent.

This whole process that has been described above, is a huge venture that needs the collaboration of many people in order to function. It is an e-tool that is feasible to be created. As we are university students of Economics, we are not to have the knowledge of how a data basis and an information system works in detail. After discussions with Computer Scientists, it is clear that every function of our application is totally feasible to be created. Obviously, this plan needs time in order to be implemented with the least possible flaws. Goodwill is a basic value that needs to complement the implementation of our application. Once the previously discussed elements are granted, great results can be achieved.

Many scientists have pointed out that the refugee flows are an opportunity. There are many countries across the world facing the aging of their population and the lack of scientific skills. The Syrians are considered to be highly skilled people and can offer significantly in a country's economy. A characteristic example regarding the ageing of the population is Greece, where the Greek alternative minister of Interior and Administrative Reconstruction, Ioannis Mouzalas, has claimed that immigrants will help Greece not only to solve its demographic problem but also improve its public insurance system. The number of immigrants that has asked for asylum in the European Union is absorbable. We only have to examine the situation as chance for a better function of our economies and not as a threat. This very crucial moment is the

suitable one to show the values that the European Union is constructed on. The situation can and needs to be dealt with decisive steps. Our application can guide the Union to this direction.

The refugee crisis constitutes a worldwide problem. Consequently, after the implementation of this plan in the region of Europe, there comes the phase of expanding our app to the whole world. It is an ambition that needs a lot of work and patience to become reality. The human nature needs to be respected and the principle of solidarity should prevail. Only then, will we be able to discuss about the above mentioned.

After all, it's not just about economics. A French father⁴ was recently shown on TV. He travels 40 km after work every day to distribute food to migrants in Paris. His explanation: "I have to do this, otherwise I won't be able to talk to my kids later."

References

Books:

Macroeconomics and the financial system, N. Gregory Mankiw- Lawrence M. Ball, 2011, New York

Population Growth and Technological Change: One Million B.C. to 1990, Michael Kremer, Quarterly Journal of Economics 108, August 1993

Macroeconomics: An introduction to Advanced Methods, William M. Scarth, 1996

E-Articles & Reports:

Ostrand N., 2015, The Syrian Refugee Crisis: A Comparison of Responses by Germany, Sweden, the United Kingdom, and the United States, Journal of Migration and Human Security, Vol. 3(3), pp. 255-279.

The cost of the refugee crisis by Andreas Becker, Published on February 1st 2016 (<http://www.dw.com/en/the-costs-of-the-refugee-crisis/a-19016394>)

The Refugee Crisis Fact Sheet by the Hellenic Republic Secretariat for Media & Communication, Published in April 2016 (<http://www.greeknewsagenda.gr/index.php/fact-sheets/5745-greece-dealing-with-the-refugee-crisis>)

An article on the Harvard Business Review, Europe can find better ways to get refugees into workforces, by Othman Bufaied and Luk N. Van Wassenhove, Published on October 5th 2015 (<https://hbr.org/2015/10/europe-can-find-better-ways-to-get-refugees-into-workforces>)

HBR Article by Luk N. Van Wassenhove, published on September 22th 2015 (<https://hbr.org/2015/09/whats-europes-long-term-plan-for-integrating-refugees>)

The Refugee surge in Europe: Economic Challenges, Published in January 2016 (<https://www.imf.org/external/pubs/ft/sdn/2016/sdn1602.pdf>)

Greece's Economy is getting crushed between austerity and the Refugee Crisis, by Daniel Marans, published on March 2nd 2016

⁴ A beautiful example of human behavior, which is a significant element for the efficient management of the refugee crisis, coming from the following article: (<https://hbr.org/2015/09/whats-europes-long-term-plan-for-integrating-refugees>)

(http://www.huffingtonpost.com/entry/greece-refugee-crisis-economy_us_56b12f1de4b04f9b57d7b7d4)

Managing the refugee crisis, EU's financial support to Greece, official data from the site of the European Union (http://ec.europa.eu/dgs/home-affairs/what-we-do/policies/european-agenda-migration/background-information/docs/20160412/factsheet_managing_refugee_crisis_eu_financial_support_greece_en.pdf)

The EU-Turkey treaty, official data from the site of the European Union (http://europa.eu/rapid/press-release_MEMO-16-1221_en.htm)

Immigration Policy, official data from the site of the European Union (http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuId=FTU_5.12.3.html)

Progress report about the refugee crisis, published in December 2015, official data from the site of the European Union (http://ec.europa.eu/dgs/home-affairs/what-we-do/policies/securing-eu-borders/legal-documents/docs/communication_-_progress_report_on_the_implementation_of_the_hotspots_in_greece_en.pdf)

The infographics used at the paper come from:

(<https://www.mercycorps.org>)https://www.deginvest.de/International-financing/DEG/Presse/News/News-Details_251649.html

https://www.euromod.ac.uk/sites/default/files/reports/Policy_effects_2015.pdf

<http://www.theatlantic.com/international/archive/2015/11/economic-impact-european-refugee-crisis/414364/>