RESPONSES TO REFEREE 1

We would like to thank you for the thoughtful and detailed report on our paper. For your convenience, we repeat your comments (in italics) and summarize how we plan to deal with them in a revision.

Overview: This paper addresses a very interesting and debated question in the economics of migration, if immigration, together with international trade, increases the unemployment rate in host countries. The paper first presents alternative theoretical hypotheses that lead to opposite effects of immigration on unemployment, then using panel data from 24 OECD countries between 1997 to 2007, provides an answer to the question. The finding is that immigration has a negative effect on unemployment. The paper addresses the important issue of reversed causality, as well as issues related to heterogeneity in the data. The main shortcoming of the paper, which should also lead to a change of title, is the fact that the migration considered is actually labor mobility within the 24 OECD countries in the data. The inflow of immigrants in all the countries considered are greatly underestimated by considering only foreign national from other OECD countries. Overall, the paper brings an interesting new contribution to the debate, however limited by the definition of immigration used.

We are happy that you share our view on the importance of the topic and the appropriateness of the method chosen. Concerning your mentioned main shortcoming, we are very grateful that you point that out. Actually, we are very sorry for being so imprecise in the description of the data used in our paper.

We fully share your view that omitting the inflow of immigrants of all other countries than the 24 OECD countries would greatly underestimate the effect. Whereas we study the impact of immigration on OECD countries, we do use all available information on inflows from all countries. We will state that much more clearer in the revision of the paper.

In the current state of the manuscript, you only can infer that indirectly by comparing the number of observations in Table 1 and Table 2, which is much larger for the gravity specification (198 sending countries) reflecting the large number of sending countries of immigrants into the 24 OECD countries. These sending countries are used for all regression specifications in the current manuscript. Specifically, we also include immigrants from China and India, Egypt, Libya, and Tunisia, as well as Latin American countries amongst others. Note that even though data are missing
for several years for several countries, we use all available data on inflows which are available in the database. For your convenience, we give a list of all countries which are included at least for one year to calculate the total inflow of immigrants where a migrant is defined as a person with a different nationality:

Afghanistan, Albania, Algeria, Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Central African Republic, Chad, Chile, China, Chinese Taipei, Colombia, Comoros, Congo, Cook Islands, Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Côte d’Ivoire, Democratic People’s Republic of Korea, Democratic Republic of the Congo, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, Finland, Former Yug. Rep. of Macedonia, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kiribati, Korea, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Lithuania, Luxembourg, Macao, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Mauritania, Mauritius, Mexico, Micronesia, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nauru, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Niue, Norway, Oman, Pakistan, Palau, Palestinian administrative areas, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico, Qatar, Romania, Russian Federation, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia and Montenegro, Seychelles, Sierra Leone, Singapore, Slovak Republic, Slovenia, Solomon Islands, Somalia, South Africa, Spain, Sri Lanka, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tokelau, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Uzbekistan, Vanuatu, Venezuela, Viet Nam, Yemen, Zambia, Zimbabwe.
ad 1.1 My first point is related to the treatment of the data and the definition of “immigrants”. In the analysis, an immigrant is mostly defined as a foreign national. This, in my view, is a shortcoming of the paper. Among the 24 countries considered there is a wide difference about the laws that grant nationality to immigrants. Countries such as New Zealand, Canada and the US give the possibility to acquire citizenship after a few years of immigration, therefore, the largest part of immigrants in those countries are actually citizens as well and would not be counted as immigrants in the paper. In contrast, countries in continental Europe such as Germany, Italy or Spain, do not grant citizenship very easily and most of their foreign born remain non-citizen for life. Moreover, a large part of foreign born individuals in countries such as Italy, Spain and Japan, are actually citizens (second, third, fourth...generations citizens mostly from South America). Another important difference between these two groups of countries is how citizenship is granted in general, in the first group of countries prevails the ius soli while in the second the ius sanguinis which implies that second generations would count as immigrants in continental Europe, but not in US, Canada or New Zealand for example. By defining immigrants based on place of birth is a much better way to deal with those differences as the place of birth is not (or less) subject to citizenship laws.

We fully agree that the definition of immigrants matter, even more so in a cross-country analysis covering countries with different definitions. Therefore we do use data on both definitions, on the nationality of the person or its country of birth. Please see Table 4, Specifications 2 and 3. Note however, that inflow data are only available for the nationality based definition.

ad 1.2 Another point is about Figure 1. In the x-axis the figure reports the log of immigrant inflow, in the y-axis the unemployment rate. Since the important measure is the unemployment rate, immigration should also represented discounting the size of the labor force, i.e. it would be more useful to see in the x-axis the share of new immigrant on labor force, or at least on population. It is unreasonable to think that (the log of) one million immigrants in the US should have double the effect on its unemployment rate than (the log of) half a million in Ireland. This applies to Figure 2-3 as well.

We agree that we could account for the size of a country measured by the labor force when using immigration data. We are happy to provide the graphs
and add or replace them in the revised version of the manuscript.

Figure 1: Average unemployment and log of net immigrant inflows over population

Figure 2: Average unemployment and log of stock of immigrants (foreign nationals) over population
ad 1.3 The same argument can be applied to Figure 4. Although in Figure 4 the quantities are expressed in terms of relative changes, it would be useful to report the relative change of immigrant flows not only respect to the size of immigration but also the size of the labor force, as it is for the unemployment rate.

We are also happy to add or exchange Figure 4. For your convenience, we already provide the size-normalized Figure 4 in this response.

ad 1.4 The same criticism applies for the analysis. Shouldn’t the net inflow of immigrants be relative to the size of the receiving country labor market?

Note that our regression include the log of population. Hence, in the regressions we take care of size differences of the receiving countries.

Conclusions: Overall, the paper addresses an interesting question from the point of view of the economist but also of the policy maker. The paper spends few words relating the question and its answer to the political debate it was sparked by the accession of the new members of the European Union and the decision of some old members to use up the whole time available to restrict worker immigration from the new countries (particularly the German speaking countries). Yet, in the pool
of the OECD countries, there are only three from Eastern Europe: Czech Republic, Hungary and Slovak Republic, and some of the big countries, potential sources of migrants such as Poland and Romania are not present. It would be interesting to see if the inclusion of the other Eastern European countries would have an impact on the overall results corroborating them or telling us something different. It would also be interesting to re-evaluate the results with data relative to the EU once all the restrictions are lifted. So far, because of data availability, it is, at best, hazardous to draw policy conclusions that Germany and Austria by restricting immigration from Eastern European countries effectively condemned some of their citizens to a longer spell of unemployment. Yet, it is fair to say, that to the best of our knowledge, given the results of the paper and the availability of data, those restrictions did not have an empirical support. Another point I would like to stress further is that although the analysis seems to fit well the European internal mobility, its results cannot be extended to represent the entire effect of immigration, as the inflows are based on bilateral data among OECD countries and do not include the largest sources of migration such as China, India, North Africa and South America. In fact, it would be interesting to restrict further the sample to EU countries and see if the results still hold.
Referring to points 1.1 and 1.2, we want to emphasize that we do take into account immigration inflows from more than the three mentioned Eastern European Countries, as well as India, China, North Africa, and Latin America, see the list of countries above. However, we will be happy to be even less pushy and more careful in both interpreting our results and making policy conclusions in the revised version of the paper. Additionally, we are happy to include another set of results where we restrict the sample of the receiving countries to EU countries.