CHAPTER 10: CONCLUSION

10.1 Summary of the Findings

10.1.1 Retrospect

Globalization and free movement between developed countries have had a significant impact on cross-border migration, capital mobility, innovation, and economic development. In most developed countries the share of foreign-born people has reached more than 10 per cent of the total population, and in some countries like Canada and Switzerland this share has even reached 15 per cent (Bodvarsson and Van den Berg, 2013). A large number of people live illegally in most developed countries, and they are without formal rights and social protection. The exact number of undocumented migrants is not known, and the statistics are based on speculation.

The recent mass migration has created heated debates, and has generated both support and opposition inside the host societies. There is no doubt that migration has affected the host and the sending economies in different ways. This study has tried to observe international immigration from different socio-economic angles, and to shed light on the various positive and negative impacts of international migration. As indicated in the introductory chapter, migrants are heterogeneous groups, and their personal characteristics such as age, education, and gender differ significantly from the population of the host society. Therefore, their impact on various socio-economic activities can show different forms. Throughout the different chapters of this thesis, we have demonstrated in particular the economic externalities of immigrants with different education and skill levels. An important factor that makes this study unique compared with previous migration studies is the strong focus of this dissertation on the role of the education (skills) of migrants. Education is treated here as an independent variable that interacts with the flow of migrants among OECD countries, FDI, and the labour market.

This thesis has ten chapters, and throughout the thesis we have focused on the main twofold research question: Does migrants’ education matter for capital flows, and what are the impacts of migrants on trade and labour market? We tried to answer these key research questions by applying several economic theoretical frameworks, and different econometric methodologies. Some chapters of this thesis (e.g. Chapters 5 and 6) are slightly more general in nature, and do not extensively or explicitly take the role of education into account. In the Introduction of this thesis we raised some specific research questions for each chapter, and they are printed in italics. As we tried to consider the socio-economic impact of immigrants from different angles, the chapters of this thesis are clustered into three main groups. First, Chapter 2 investigates the flow of migrants among OECD countries, and Chapters 3 and 4 explore the impact of immigration on foreign direct investment. In these chapters, we also explored the role of the education (skill) level of migrants. Second, Chapters 5 and 6 take the same structure as the aforementioned chapters (Chapters 3 and 4), and examine, respectively, the effect of immigration on international trade by examining various cross-border studies, and the impact of immigration on trade in the form of services (tourism) by means of a case-study approach. The third and last part of this thesis includes three chapters, and considers the impact of immigration on the labour market. Chapters 7 and 8 explore the wage differences between migrants and natives, and Chapter 9 shows the impact of undocumented migrants in the case of the Netherlands. To give a clearer picture of the findings based on the research questions raised, we present the summary of each part of the thesis in separate sub-sections (10.1.2 to 10.1.4).
10.1.2 Migrant flows and international networks: summary of findings

In the first part of this thesis, Chapter 2 investigates: How centralized or dispersed are migration flows, and how does this structure evolve over time? And how is migration activity dispersed between specific countries, and if so, do such patterns change over time? To answer these questions, we apply a dual modelling technique, namely: 1) a gravity model by using the conventional econometric approaches; and 2) a network-based regression technique, such as Multivariate Regression Quadratic Assignment Procedures (MRQAP). Our main findings indicate that physical distance and border effects are significant predictors of international migration flows between OECD countries. We also find that a pool of young population in a country of origin acts as a push factor, while higher education level generates both pull and push effects in migration flows among OECD countries.

Chapter 3 explores: Do immigrants in general, and different education levels of immigrants in particular, have an effect on foreign direct investment in both directions: the inward and outward flow of foreign direct investment? To analyse this effect, we applied a quantitative and systematic review of the literature on the impact of migration on FDI by means of meta-analytic techniques. We found that the overall effect of immigration on FDI is positive, but a different education and skill level had different impacts. Higher-educated and skilled migrants have a higher effect on the flow of FDI, while poorly-educated and low-skilled migrants have lower effects. The negative impact of education level and skill level on FDI indicates that larger numbers of poorly-educated and low-skilled migrant reduce the chances of sending countries to attract FDI investments.

With this perspective, Chapter 4 studies: Does education matter for foreign direct investment in both directions (inward and outward) in the UK? Our results show that international networks through the sphere of human capital have a reinforcing impact on networks in terms of capital flows to and from the UK. This mainly holds for highly-educated migrants, while for poorly-educated migrants a different mechanism seems to prevail.

10.1.3 Migration, trade and tourist flows: summary of findings

The second part of this thesis starts again with a meta-analysis in Chapter 5 on the link between migration and international trade, by considering the question: Do migrants complement international trade? We used the distribution of immigration elasticities of imports and exports across 48 studies that yielded 300 estimates. We found that migration has a positive and significant impact on international trade. However, the impact is less on trade in homogeneous goods. Furthermore, regarding the countries considered in our analysis, the effect of migration is greater on imports than on exports in about half of the countries. However, if we also correct for unobserved heterogeneity and publication bias, the average immigration elasticity of exports becomes slightly higher than that of the imports.

Chapter 6 answers the research question: Do immigrants have an impact on the total number of visits, Visiting Friends and Relatives (VFR) tourist flows, and the duration of VFR visits?, by studying the linkage between migration and VFR tourist flows (inbound and outbound) to and from the UK. We found that there is a strong relationship between the stock of migrants in the UK and VFR tourist flows. Our empirical results indicate that, as the stock of migrants increases from a certain country, ceteris paribus, the number of VFR visits from that particular country increases.

10.1.4 High- and low-skilled immigrants: summary of findings

The third part of the thesis includes three applied studies. The first two chapters investigate the wage difference between migrants and natives who are equally educated in the Netherlands, and the last chapter evaluates the wage and employment opportunities of undocumented migrants involved in domestic work inside private households in the Netherlands.
The research question to which the first two chapters of this part try to provide an answer is: *Does equal education mean equal income between migrants and natives, and if not what factors can explain the gap?* Chapter 7 investigates the wage difference between migrants and natives, and to what extent a migrant background can have an impact on the labour market outcomes of these migrants. Our empirical results indicate that, although migrants (first- and second-generation) are equally educated in the Netherlands, there is still a wage gap among them. In this study, we reject the human capital hypothesis that people with the same qualifications and supply characteristics would have the same labour market outcome.

Taking the message from Chapter 7, Chapter 8 then tackles this issue from a different angle by attempting to answer the respective research questions: *Does ethnic background affect the schooling results of immigrants, and later wage differences in the market? And Is there a link between the wage differential of immigrants in different localities and local cultural milieu?* In this chapter we use a combination of the Bourdieu and the Mincer model, and try to explain the wage difference between migrants and natives from the ability (culture-capital) perspective. We find that immigrants are associated with lower schooling achievements, and second-generation immigrants (who are supposed to be better equipped with language skills) are performing worse compared with first-generation immigrants, while the relationship between quality of school and graduation score was positive and significant. The worse performance of second-generation migrants means two things: 1) our results confirm the findings of previous studies, wherein parental background has a significant impact on the future educational attainments of the children; and 2) immigrants’ ‘ability’ is a function of access to schooling.

Chapter 9 considers the research question: *Do undocumented migrants contribute to the Netherlands economy?,* and attempts to determine the impact of undocumented migrants who are working as domestic workers inside private households. We find that women are better paid than men in the domestic household sector. As domestic work has traditionally been a female job, employers prefer women to their male counterparts in this sector. From our empirical results, the wage difference between men and women appears to be about 13 per cent in this sector. Regarding the residential location of domestic workers, those who live in bigger cities are better paid than those in smaller cities. Our findings on the choice of location by undocumented migrants explain why large cities are more attractive places for undocumented migrants to settle. We find that household size and having children aged between one month and 5 years increases the chances of hiring a paid domestic worker. Furthermore, a positive relationship between the age of the employer and the hours of domestic help is found in this study.

10.2 A Critical Assessment of the Research

In retrospect: looking back over the various chapters of this thesis has given me the opportunity to appreciate what I have achieved and learned during my PhD research period. I will begin with some of the strong points, and then point out the weak points of this thesis.

10.2.1 Strong points

The application of both network analysis and the gravity model on the flow of migrants between OECD countries is the novelty of our approach. The combination of these techniques potentially opens a window of opportunity for new researchers to think not only in terms of the classical application of methodologies, but to think beyond. The application of network analysis could capture the education effect of migrants as both a pull and a push factor, while classical gravity theory was not able to capture this effect.

The meta-analysis chapters, in the first place expanded my opinion and understanding of the impact of migrants on international trade and FDI, and gave me the possibility to identify the strong and weak
points in the aforementioned studies. With regard to the impact of migration on inward and outward flows of FDI, the meta-analysis study revealed that heterogeneity of migrants in terms of education and skill matters for the flow of FDI in both directions. Previous studies conducted on this link have suffered from not controlling sufficiently either for the education heterogeneity of migrants or for the reverse causality between immigration and FDI. In Chapter 4 we tackled both concerns, and controlled for the educational heterogeneity of migrants, and for the reverse causality effect by applying the instrumental variable (IV) approach.

On the wage difference between migrants (first- and second-generation) and natives, we first applied the Mincer equation, and then controlled for the conventional discrimination (ability) through parents’ roots. We then proceeded to apply a combination of the Bourdieu and the Mincer model with an application of a 2SLS model. The aim was to find how ability in terms of parents’ roots and local cultural milieu could explain the wage difference between migrants and natives. Our instrumental variables and application of the 2SLS approach was shown to be a relevant approach for this type of analysis.

10.2.2 Weak points

In our network analysis chapters, it was evident that there is a need for more effective modelling techniques that can narrow the gap between the descriptive and the modelling network approaches. Furthermore, the application of much more detailed migration micro-data sets might probably produce interesting complementary results.

In Chapter 4 we controlled for the reverse causality through the application of the IV approach, but our instrumental variables (passport costs, and Islamic religion) are not strong instruments for highly-educated migrants. It would be interesting to explore new instrumental variables, such as specific migration policies targeting highly-educated people, etc.

Clearly, an estimation method for the Mincer equation, and controlling for the ability of immigrants in explaining the wage differences between migrants and natives, produced reliable results, but it should be noted that the data was not randomly selected. In future research, a different econometric technique (e.g. a bootstrap with a Heckman selection model) might be able to increase the power of our estimation.

10.3 Methodology

This thesis has utilized several different types of analysis, ranging from the macro- to micro-level. The macro-data sets are at the country level (e.g. the flow of migrants between OECD countries, FDI, international trade), while individual analyses are based on survey data (e.g. on graduate students, and undocumented migrants). More specifically, in the second chapter, we use the International Migration Statistics (IMS) for OECD countries. This data set includes information on the flow of migrants by country of origin and destination. However, this data set also has some shortcomings: for instance, it does not report flows below 1000 observations. In addition, we were not able to capture the flow of migrants between poor countries and rich countries. Our analysis is instead based on migration flows between OECD countries.

The two meta-analyses, Chapters 3 and 5, are based on the collection of a number of papers (published and unpublished), which largely address the same research questions, and used a particular set of econometric analyses. This relates to the two-way interaction between migration and international trade, and between migration and FDI. We scanned a large number of studies, and finally ended up with nine publications for the impact of immigration on FDI, which yielded 140-point estimates for outward FDI, and 125-point estimates for inward FDI. For the impact of immigration on international trade, our sample
consists of 48 publications, which yielded 233-point estimates for exports and 178-point estimates for imports.

Chapters 7, 8, and 9 are based on micro-data sets. The first two chapters offer an analysis based on graduate students from higher professional education (in Dutch terminology, called HBO), while in Chapter 9 we used questionnaire data from a survey of undocumented migrants employed to do household tasks in the Netherlands.

10.4 Policy Relevance

The European countries are in a state of constant change in their immigration policies. These countries were already not enthusiastic about accepting migrants, but the recent economic crisis, which caused economic stagnation and raised the unemployment rate, has worsened the situation. However, strong immigration policies and increased border control failed to stop the flow of migrants. Instead, developed countries today are experiencing a rapid increase in the number of unauthorized migrants. This indicates that either there is a lack of information on the policies toward migration or there is a lack of understanding about the causes and consequences of international migration. However, it is important to assure policy makers in the receiving countries that international migration is essentially a fact not a policy goal, and that there should be an awareness of the difference between the real impact of immigration and the perceived impact.

As indicated immigrants are heterogeneous in their formation in host countries, and therefore further research is needed to find out the positive and negative externalities of international migration. A number of scientific studies, including the various chapters of this thesis that have been conducted on the socio-economic impact of migrants in the host societies, have revealed a positive correlation between the stock of immigrants and various important economic indicators (e.g. international trade, and FDI). Furthermore, based on the theory of assimilation, migrants adaptation – to the host society’s culture, social values, and language – increases with the time they spend in the host society, and studies – including Chapter 7 and 8 of this study – reveal that not only are first generation migrants not perfect substitutes for the native population, but even some groups of second-generation migrants lag behind the natives. Therefore, the creation and implementation of policies which consider the complementarity between immigrants with and the native population would better help host societies.

Chapters 3 and 4 of this thesis show that highly-educated migrants complement FDI. This indicates that a points-based migration policy would further help European countries. Attracting foreign-born talents would not only fill the labour vacuum in the labour market, but also bring long-run positive externalities. Both chapters indicated that FDI largely depends on the education level of immigrants in both inward and outward FDI. More specifically, poorly-educated (low-skilled) migrants are substitutes FDI in both directions, while highly-educated migrants complement FDI. If countries have a larger stock of highly-educated migrants from a particular destination, this may benefit both countries. This effect may ease the effect of the brain-drain from the migrant-sending countries.

Globalization has increased the competition for talented and skilled workers in the world. In particular, host countries where migrants are graduating from higher education centres may benefit considerably if they can provide job opportunities for this pool of young and talented workers. Empirical studies on the labour market performance of migrants indicate that they are not substitutes for natives. Chapters 7 and 8 of this thesis compare highly-educated migrants with natives in the Dutch labour market. Our results indicate that there is not much difference between the first- and second-generation migrants: both are lagging behind in wages compared with the natives. This indicates that the labour market integration of
migrants in general, and the second-generation migrants in particular, may be taken as a primary step towards better job opportunities and further integration.