

# Final Report

# Optimal Immigration Policies in Europe: From Conflicting Interests to Mutual Gains

Leibniz Institute: Ifo Institute – Leibniz Institute for Economic Research

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Ifo Center for International Institutional Comparisons and

Migration Research

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# **Executive Summary**

The Ifo Center of Excellence for Migration and Integration Research (CEMIR) was established in January 2012, using funding from SAW project "Optimal Immigration Policies in Europe: From Conflicting Interests to Mutual Gains." The funding was initially granted for the period 2012 to 2014, but with subsequent permission, funding was extended until the end of 2015. Although the funding was granted only for this limited period, the Ifo Institute committed to further maintaining and developing CEMIR also after this period, to create a lasting research environment that contributes towards answering the questions concerning optimal immigration policies. The defining feature of CEMIR is its pursuit of an integrated approach that bridges the usual divide in economics between theorists and empiricists on the one hand, and labour market economists, public economists, education economists and globalization researchers on the other. CEMIR brings together four Ifo departments fostering cooperation in different, traditionally separated fields of economics. During 2015, the refugee crisis in Europe drew particular attention to CEMIR activities and scientific expertise.

CEMIR has developed an integrated assessment model to estimate the macroeconomic effects of immigration on labour markets as well as fiscal expenditures in redistributive welfare states. This model was used first to estimate the overall effects of immigration in 20 OECD countries, and subsequently applied to analyse the expected effects of refugee inflows in 2015 on Germany. Moreover, in order to gather data and institutional background on immigration and asylum in Germany and other European countries the ifo Migrationsmonitor was created. To better understand the complexity of migration decisions and the determinants of successful integration of immigrants on the micro level CEMIR has covered a broad range of research topics in more detail. One study has tested new implications derived from a theoretical model on the self-selection of emigrants with respect to their observable and unobservable characteristics. Results suggest that emigrants tend to be selected more strongly on their pre-migration incomes than previously known. Another research approach takes into account how decision-making on emigration and subsequent labour market outcomes are affected. should someone migrate with his or her family. In addition to family characteristics, preferences towards the division of labour play an important role in this context. Focusing on immigrants' integration in the receiving societies, one study finds that granting birthright citizenship increases school performance of immigrant children in Germany. Finally, the education system plays an important role for the integration of immigrants: CEMIR research suggests that in the case of a lack of German language skills, later tracking might improve school performance among first and second generation immigrant children in Germany.

Important aspects of CEMIR's integrated approach include the dissemination of research results to the academic community, the contribution to policy debate, and the provision of information to the interested public. CEMIR has successfully organized several academic events during the last years, including four conferences, two junior economist workshops and an intensive course on the economics of migration. Moreover, two policy events have introduced CEMIR results to a broader audience, including policy makers and journalists, and CEMIR research played a central role in a workshop in Brussels. Several research papers produced within CEMIR have been published or accepted for publication in academic journals or are available as working paper versions. CEMIR work was also published in the ifo Schnelldienst and cited by the national as well as international press, like The Economist and The New York Times.

Work within CEMIR continues to build on the expertise, the formal and informal institutional structures as well as the cooperation and networks established during the last four years. The goal is to further develop CEMIR as a cornerstone for migration research with lasting impact on the public debate related to migration topics in Germany and beyond.

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# 1. Motivation and Aim of the Project

Diverging demographic developments in Europe and developing countries create the potential for huge mutual gains from migration. The elimination of political migration barriers would probably lead to a large increase in world GDP. On the other hand large migration flows from poor countries to rich countries pose challenges. The size and composition of migration flows would not just respond to differences in the marginal products of labour, but also to differences in welfare state generosity. A further challenge is setting incentives to attract high-skilled immigrants while keeping high-skilled natives in the country. Another critical issue involves the integration of immigrants, particularly into the education system and labour market. The right design of systems of higher education, which must compete internationally, thereby becomes a major prerequisite of a successful immigration policy.

The coexistence of huge potential gains and daunting challenges raises the question: How must receiving countries' welfare state and labour market institutions as well as immigration policies be designed so that migration can unlock mutual benefits for all parties involved?

The Ifo Center of Excellence for Migration and Integration Research (CEMIR) was established in January 2012, using funding from SAW project "Optimal Immigration Policies in Europe: From Conflicting Interests to Mutual Gains." The funding was initially granted for the period 2012 to 2014, but with subsequent permission, funding was extended until the end of 2015. Although the funding was granted only for this limited period, the Ifo Institute committed to further maintaining and developing CEMIR also after this period, to create a lasting research environment that contributes towards answering the questions concerning optimal immigration policies. The defining feature of CEMIR is its pursuit of an integrated approach that bridges the usual divide in economics between theorists and empiricists on the one hand, and labour market economists, public economists, education economists and globalization researchers on the other. CEMIR draws on expertise from four departments of the Ifo Institute (Ifo Center for the Economics of Education and Innovation, Ifo Center for International Institutional Comparisons and Migration Research, Ifo Center for International Economics and Ifo Center for Labour Market Research and Family Economics) and from the corresponding research areas in the CESifo Network, with Ifo Center for International Institutional Comparisons and Migration Research having the coordinating role.

Educating and promoting young researchers is a central role of CEMIR. In addition to hiring and educating doctoral students at Ifo, CEMIR organizes yearly workshops for migration researchers at graduate student, post-doctoral and assistant professor levels, inviting a leading senior researcher as a keynote speaker who is then also going to comment presentations by young researchers. Participants to these workshops are selected on competitive basis. CEMIR also organised a doctoral course, with an open application process and travel costs being reimbursed to selected participants.

CEMIR invests heavily in knowledge transmission, both in the academic community and to policy makers and the general public. CEMIR has established the ifo Migrationsmonitor, providing data on migration flows in general and the refugee crisis in particular on the CESifo web site, both in English and in German. In addition to this, knowledge is disseminated in German using the ifo Schnelldienst. Ifo Schnelldienst has established as new section "ifo Migrationsmonitor" which will be published quarterly, and covers recent developments in migration. Furthermore, CEMIR has organised knowledge transmission events in Berlin and Munich and CEMIR research also played a central role in a workshop in Brussels.

# 2. Research Modules

# 2.1 Module 1: Optimal Immigration Policies with Skill Complementarities and Redistribution

This module concerns the integration of two literatures within the economics of migration, which have for the most part remained disconnected. On the one hand, there is a large literature that concerns how the arrival of new immigrants may affect native worker wages. This is

typically analysed assuming a frictionless labour market, where factors of production are remunerated with their marginal contribution to production, and without unemployment. A relatively minor part of this literature concerns employment effects of immigration. The existence of a welfare state is typically ignored, which means that, for example, public goods that are provided to the whole population as well as unemployment benefit payments play no role in the estimated effects. On the other hand, another strand of literature attempts to calculate the difference between taxes paid by immigrants and value of transfers and services received. While the results from these papers are extremely interesting, it is problematic that the interactions between immigrants and natives in the labour market are excluded, implying that implicitly these papers typically assume that labour market outcomes of natives would be the same with or without immigration.

CEMIR research paper "Immigration, Search, and Redistribution: A Quantitative Assessment of Native Welfare" addresses these issues by developing a relatively rich model of the labour market, which includes complementarity in production between workers of different skill types, and between natives and immigrants, as well as search and matching frictions, and a government that needs to balance tax revenues and expenditures. Hence, the traditional and important channel of gains for natives (skill complementarity) is introduced in a much more realistic world of frictions and redistribution that can make immigrants costly for natives. The model is then calibrated to match the observed average statistics for Germany and 19 other OECD countries. The introduction of job creation by firms - an important feature of the framework – generates two important effects of immigration. In particular, if firms cannot discriminate between natives and immigrants in the search process, but can pay immigrants lower wages (as is the case in the data), then the presence of immigrants drives up the average return from job creation. This encourages firms to create more jobs, some of which will be filled by natives. However, if matches with immigrants are more likely to break (as implied by immigrants' larger unemployment rate), the expected return to job creation is lower and firms will create fewer jobs. Which channel dominates depends on the relative strength of each mechanism. This can be simulated by the model once its parameters have carefully been calibrated to the data. In particular, the effects of increasing immigration marginally have been looked at, and the overall effects of immigration have also been evaluated.

The analysis shows that immigration into imperfectly competitive labour markets need not worsen labour market outcomes for natives. Instead, it can improve the job creation incentives of firms. Thus, measures that aim at eliminating the immigrant – native wage gap may hurt natives. The positive labour market effects are threatened if immigrants are too often unemployed or if too many of them are unskilled. Policies reducing the rate of job loss for immigrants would therefore help natives. Finally, in contrast to widespread belief, immigrants seem unlikely to hurt low-skilled natives, even in the more realistic framework developed here. This is because immigration is often balanced between the more and less educated, because immigration's job-creation effect can help, and because redistribution towards immigrants is not as large as often suggested in debate.

CEMIR researchers also carried out a survey of German firms to ask about their willingness to hire refugees in various types of jobs, as well as about hurdles firms face when hiring refugees. Overall, this analysis showed that many firms see opportunities for asylum seekers, but also view language and legal barriers as serious obstacles. Minimum wage also turned out to be problematic, especially for smaller firms and in eastern Germany.

# 2.2 Module 2: The Political Economy of Immigration and the Welfare State

The aim of the second module was to establish a link between migration and voter preferences and voting outcomes. This module integrates political responses into the analysis carried out in the first module.

One paper analyses attitudes towards immigration in Germany, using the German Socioeconomic Panel (SOEP). The paper takes a question measuring bitterness in life and shows that being bitter is strongly associated with having big worries about immigration. Separate analyses of civil servants, other workers, pensioners and other persons not working show that the effect cannot be explained only by concerns that immigrants are competing with natives in the labour market. A second study evaluated how an exogenous inflow of foreigners affects natives' attitudes towards immigrants, job worries and their own financial situation. The exogenous inflow in this context was the migrant inflow from the former Yugoslavian countries to Germany during the Balkan wars in the early 1990s. For this project several data sets were used, namely the Politbarometer, a monthly survey for the German TV station, and the ALLBUS, a social survey in Germany. A central result from this study is that an increase in the proportion of immigrants in a region causes the public to hold more negative attitudes towards asylum seekers and immigrants in general. This effect appears to be driven to a large extent by increased concerns about job security and worries about the personal economic situation. Extreme-Right Placement, however, decreases.

However, it is not only important to analyse the impact of migration on preferences of the population of voters staying in a country. On the other hand, policy makers might also be concerned about those who leave in order to make their living somewhere else. Voting with their feet, these emigrants are not part of the domestic political process anymore. Another paper in this module thus analyses preferences among emigrants who leave Denmark, a rich, redistributive European welfare state. It turned out that men who have emigrated from Denmark are clearly more negative towards income redistribution than men who stay in Denmark, suggesting that the Tiebout sorting mechanism is active and migrants vote with their feet. Surprisingly, this result does not hold among women: women who have emigrated are more positive towards redistribution than women who have stayed in Denmark. Various possible explanations of this surprising result are discussed.

A further strand of research focuses on the political economy of migration. This literature analyses the role of migration in the democratic political decision making process. Referring to this, one paper in this module analyses the impact of elections on immigration policy, in particular naturalizations, in a panel study of US states. The corresponding results indicate that immigration policy is (partly) driven by elections: there are more naturalizations in presidential election years and during the terms of Democratic incumbents. A further paper investigates the links between migration flows, election outcomes and changes in migration laws using a large panel data set of migration flows for 12 OECD (destination) countries. This study finds that nationalist parties that enter parliament are a crucial factor for explaining the stringency of laws that regulate migration and the stance of moderate parties regarding migration.

# 2.3 Module 3: Integration of Immigrants' Children through the Education System

This module estimates the leading determinants of educational outcomes of students with migration background, with a special focus on the role of the institutional structure of the German education system. It also analyses to what extent integration courses for German proficiency of adult migrants can improve the educational success of their children, and examines how pre-school German-language courses for children with migration background can improve their educational career. Methodologically, this research extends the existing microeconometric literature on the topic by exploiting quasi-experimental variation in the SOEP data and panel variation in the PISA data, among others. This part of the project provides insights into how educational institutions can help reduce the cost of integration and reap additional long-run benefits through the intergenerational aspects of migration.

One project investigates whether early ability-based tracking of students into different types of secondary school systematically increases migrant-native test score gaps. The empirical analysis is based on a comprehensive synthetic sample that was obtained by pooling data from all existing waves of the three largest international assessments of student achievement during primary and secondary school – PISA, TIMSS, and PIRLS – which test students in reading, math, and science. As a result, the researchers have internationally comparable information on student achievement and background characteristics for more than one million students from 45 countries. The datasets are freely available and the combination of all

datasets caused no problems. But the latest waves of TIMSS and PIRLS do not contain information about the parents' and child's birth country, making it impossible to construct a variable for migrant status. Thus, it was not possible to use that data. Based on individual test score data from 12 large-scale international tests, the analysis shows that estimates from cross-sectional regression models suggest large positive effects on migrant-native test score gaps of tracking students before the age of 15. However, estimates from differencesin-differences models that exploit variation in migrant-native test score gaps between primary and secondary school as well as variation in the age at tracking between countries reveal no significant effects. Although these estimates are not precise enough to rule out small negative effects of early tracking, overall effect sizes suggested by cross-sectional estimates are clearly overstated. Nevertheless, closer inspection of the data reveals an important heterogeneity effect with respect to how frequently migrant students speak the language of the test at home. For migrant students who almost never speak the test language at home, a significant detrimental effect of early tracking on relative achievement in reading is found, and similar, but insignificant, effect sizes in terms of math and science achievement. In line with this result, even larger negative effects of early tracking for first-generation immigrants are found, who are arguably even less integrated and less skilled in the testing language. A key implication of these findings is that tracking at later stages may not substantially reduce overall migrant-native test score gaps everywhere, but has the most scope for improving educational opportunities of children from less integrated families, who lack proficiency in the national language.

The economic and social integration of migrants – typically achieved through education – is an important concern of policymakers. Another project investigates whether living in ethnic conclaves affects the educational attainment of children with migration background. The empirical analysis is based on data from the German Socio-Economic Panel. It exploits the exogenous placement of guest workers across German regions during the 1960s and 1970s to obtain quasi-experimental estimates of the effects of ethnic concentration. Based on the IAB employee sample, region-specific ethnic concentrations for the main guest workers groups from Italy, Greece, Spain, Turkey, and Yugoslavia are computed. Preliminary findings indicate that children with migration background living in regions with high shares of migrants of the same nationality (i.e., regions with high ethnic concentrations) have higher school dropout rates (boys) and a lower probability of obtaining a middle school or higher degree (girls). In a next step, potential mechanisms that might drive these results, in particular parents' language skills are investigated. Taken at face value, these findings indicate that immigrants should be distributed rather equally across the country, rather than concentrating them in only few regions, to improve the educational outcomes of the children.

The steadily growing number of school-aged immigrants raises concerns about the impact of language hurdles on their educational performance and, hence, their future assimilation in the destination countries. A further project analyses the importance of the reading performance of first-generation immigrants for their math performance. The empirical analysis is based on four waves of the Programme for International Student Assessment (PISA) that tested the reading and math performance of 15-year-old students. The focus is on firstgeneration immigrants who are attending schools in their new home country. To identify a causal effect of language proficiency on math skills, the interaction between age-at-arrival and linguistic distance between origin and destination country languages is used as an instrument for the reading skills. PISA data is combined with a unique measure of linguistic distance. This measure is based on an algorithm comparing the pronunciations of common words and has been shown to be an excellent summary statistic of language differences in vocabularies, phonetic inventories, grammars, and scripts. Language proficiency is found to be crucial for developing mathematical skills: raising a migrant's reading performance by one standard deviation improves her math performance by 0.57 standard deviations. Naïve partial correlations exceed this causal effect by about 36 percent, indicating a substantial upward bias. These findings highlight the importance of reading skills in the educational process and point to important gains and externalities of early language support for immigrants.

Another project investigates whether immigration to Germany increases crime and whether the impact depends on regional conditions. The empirical analysis is based on official crime data and data on inflows of ethnic Germans at the county level between 1996 and 2005. It exploits the exogenous allocation of ethnic German immigrants by German authorities across regions upon arrival. Crime data had to be collected from State Offices of Criminal Investigation for the years 1997-2002 and from the Federal Office of Criminal Investigation for the years 2003-2006. The data were not available for all subcategories. Furthermore, the stock of ethnic Germans is not available at all for this time period. Therefore, the models had to estimate with inflow numbers only. Thus, results have to be carefully interpreted. It was found that immigration significantly increases crime. The crime impact of immigration depends strongly on regional labour-market conditions, with no impact in regions with low unemployment. Similarly, substantially smaller effects were found in regions with low pre-existing crime levels or small shares of foreigners. The crime effects are substantially larger than those found in previous studies. One reason could be that the characteristics of the migrant population under consideration in this study had particularly adverse labour market characteristics, especially low German language skills, yet high expectations regarding labour market and integration success, causing frustration.

# 2.4 Module 4: Economic and Social Integration of Immigrants

The aim of this module was to analyse whether the work incentives created by the Hartz IV reform had a differential effect on the labour supply behaviour of natives and immigrants, respectively. Furthermore, it was proposed to investigate the integrational effects of intermarriage.

Due to data and endogeneity problems regarding the Hartz IV reforms, it was decided to evaluate another reform which promotes the economic and social integration of immigrants, namely a citizenship reform in Germany in 1999. To be precise the effects of granting citizenship at birth on the educational participation and success of immigrant children were examined. The first step was to investigate if school tracking of immigrant children with automatic birthright citizenship improved in comparison to their school mates, who were born before the 1st of January 2000, the cut-off date, and hence were not granted citizenship at birth. This was possible using the German Micro Census waves of 2009 to 2012. To shed more light on this issue, the analysis was extended by a unique data set of school entry examinations, i.e., administrative data of every child before entering school. With this data set, it was possible to look at the effects of citizenship at birth on the integration of immigrant children over the whole childhood, from preschool to adolescence, which is unique in the literature. To be able to compare the administrative data before entering school with the tracking decision at the age of ten at the end, administrative school data was used.

It was possible to identify positive effects of citizenship in terms of preschool participation and early school entry, which, in fact, were outcomes resulting from positive investment efforts of the parents. However, no positive effects connected to outcomes which were subject to teacher evaluations, such as school readiness, repetition of school classes or tracking recommendation, were found.

Some of the most interesting factors of economic and social integration were not easy to answer with the data at hand. To be able to investigate this issue in depth, two large-scale surveys in ca. 60 schools in both Schleswig-Holstein and Northrhine-Westphalia with almost 4500 scholars participating began in June 2015 and October 2015. This study combines an extensive survey, which gives detailed information on family background, social integration, ambitions and social preferences with a trust experiment. The evaluation of the data is still in progress.

Previous research has studied intergenerational transmission of generalized trust (trust in other people as a whole) using data on children of immigrants from 29 countries in Europe, finding a strong intergenerational transmission of generalized trust from the mother's country of origin, but no statistically significant effect from the father's country of origin. One contribu-

tion in this module analyses a more specific form of trust, trust towards police. The paper follows the general setting in Ljunge (2014), but replaces generalised trust in its main regressions with this more specific form of trust. To provide comparability with Ljunge (2014), it also analyses the transmission of the generalised trust. The intergenerational transmission of trust in police turns out to differ greatly from the intergenerational transmission of generalised trust. Individuals who have migrated from countries in which trust in police is lower than in the current country of residence tend to be more trustful towards the police; a pattern which is opposite to what one would expect if specific trust would be transferable in the same way as generalised trust. Generalised trust appears to be a cultural trait that immigrants bring with them and transmit to their children, whereas trust in a specific institution adjusts faster and reflects one's experiences with that institution.

# 2.5 Module 5: International Competition for Talent and Brain Circulation

This module's goal was to analyse brain circulation and brain drain, i.e. migration decisions of highly educated people. Policy makers in many European countries aim at attracting and retaining highly skilled individuals as they are net contributors to the social welfare systems and, moreover, foster innovation and competitiveness of the economy according to previous research. Empirically, however, the incentives which play a role for migration decisions on the individual level are complex and have to be better understood in order to design policies which retain and attract the highly skilled. Research projects in this module made novel contributions related to understanding these mechanisms both theoretically as well as empirically.

One study analyses the self-selection of emigrants, in terms of observable and unobservable characteristics. It first shows that the Roy model has more precise predictions about the self-selection of migrants than previously realised. The same conditions that have been shown to result in positive or negative selection in terms of expected earnings also imply a stochastic dominance relationship between the earnings distributions of migrants and non-migrants. Danish full population administrative data is then used to test the predictions. There is strong evidence for positive self-selection of emigrants in terms of pre-emigration earnings: the income distribution for the migrants almost stochastically dominates the distribution for the non-migrants. This result is not driven by immigration policies in destination countries. Decomposing the self-selection in total earnings into self-selection in observable characteristics and self-selection in unobservable characteristics reveals that unobserved abilities play the dominant role. A complementary analysis using survey data studies the motivations of emigrants from Denmark in more detail. For men, the main reason to emigrate is work, and for women, partner and family.

In many cases, migration decisions are not only driven by own individual incentives. Family ties are likely to play an important role in the context of international migration. However, most of the existing empirical literature is restricted to within country migration of families, due to data availability. Five projects within CEMIR generalised the analysis of international migration decisions from an individual perspective to the family level. One research paper, "International migration of couples", uses administrative data from Denmark to analyse the determinants of migration propensities of married or cohabiting couples. The study develops a theory that relates migration decisions of couples to earnings potentials of the partners. Theoretical predictions are confirmed empirically by showing that migration decisions of dual earner couples are more strongly related to the primary earner's income, independent of the primary earner's gender. The theory presented in this paper is extended to a bargaining framework in the paper "Family decision-making on international migration". The model developed in it allows for divergent interests on migration and a redistribution of family income dependent on the partners' outside option and their bargaining power. In case partners do not reach an agreement on joint emigration they split up and one partner will migrate alone. The third paper uses partial identification and variance decomposition techniques to investigate empirically whether individuals self-select into couples on unobservable characteristics that might also affect individual returns to international migration. The analysis cannot reject the hypothesis that the relative difference in response to observable characteristics when comparing individuals in couples and as singles might be driven individuals self-selecting into couples and into migration on the same unobserved characteristics. The fourth paper produced in this module analyses labour force participation and household economies of emigrant couples. The empirical analysis uses survey data on Danish couples that have emigrated together. The paper finds that emigration in most cases is associated with reduced female labour force participation, especially among couples migrating outside the Nordic countries. Answers to the respondents' main motivation to emigrate show that the own job was most important for males while family reasons were the dominant motive to emigrate among female partners. Female labour force participation is particularly low among mothers. In most cases actual labour force participation is in line with the partners' preferred division of labour. The empirical results confirm the theoretical prediction from a household labour supply model which rationalises reduced female labour supply with high prices and lower availability of daycare services, like in many non-Nordic countries. The fifth paper analyses return decisions of immigrant families and investigates, in particular, the role of children in this context. It uses exogenous variation in the sex of the children born abroad to identify a differential impact of the birth of girls compared to boys on return probabilities among immigrant families in Denmark. It is found that families who have more girls than boys are more likely to return to their home country. The same holds when comparing parents who have only girls with those having only boys. The effect is strongest and statistically significant for Turkish immigrants.

Compared with the initial research plan the focus of this module was shifted more towards international family migration. The reason for this was that two post doc researchers who had proposed parts of the initial agenda left during an early phase of the project.

# 3. CEMIR Activities and Impact

CEMIR has organised yearly workshops for migration researchers at graduate student, post-doctoral and assistant professor levels. It has invited senior scholars to give keynote addresses and to comment on work by young researchers. Furthermore, yearly conferences on migration have targeted well-known researchers and allowed CEMIR to establish Ifo as the meeting point for the best researchers in the area.

In 2013 and 2015 an intensive course on migration research by Christian Dustmann and two junior economist workshops were offered by CEMIR. At the workshops the keynote speakers Christian Dustmann and Matz Dahlberg provided valuable feedback to young researchers. A productive atmosphere encouraged discussions on future research projects and allowed participants to expand their academic network. The interest in the workshops was high and the number of applications exceeded the available places by far. Building on the success of these previous events the Ifo Institute will host another workshop for junior researchers in the field of migration in 2016. Additionally, four international conferences were held on migration research, of which three took place in Munich in 2012, 2013 and 2014. The fourth conference was organized at UC Davis together by Panu Poutvaara and Ifo research professor Giovanni Peri.

To foster the exchange of ideas and the dissemination of research results within CEMIR, the Ifo Institute and the University of Munich the "ifo CEMIR Seminar" has been introduced. The monthly seminar provides a platform for CEMIR members as well as external researchers to present their work and has created a discussion forum for migration-related research projects.

An additional service product that has been established in the context of CEMIR is the ifo Migrationsmonitor. It has been introduced with the aim of providing up-to-date information both on regular migration and asylum-seekers in the European Union. An article under the heading of the ifo Migrationsmonitor is published in the ifo Schnelldienst every three months.

Several events were recently organised to present the insights gained from CEMIR's research to politicians, journalists and the general public. In November 2015, Panu Poutvaara and Gabriel Felbermayr gave a presentation of CEMIR's key findings in Berlin, which was followed by a panel discussion. Moreover, in the light of recent political developments Panu Poutvaara gave a public lecture on the refugee crisis at the Ifo Institute to an audience of almost 100 guests, which was also followed by a panel discussion. Overall, CEMIR research has generated considerable interest among researchers and policy makers, as well as from the media including the Economist, the New York Times and the Financial Times.

# 4. CEMIR Output

Work produced within CEMIR is part of the doctoral dissertations of Ilpo Kauppinen, Till Nikolka, Jens Ruhose and Judith Saurer.

The data used in CEMIR research projects comes from various administrative and non-administrative sources. Some data are publicly available or available upon request from the institutions that collected the data.

# 4.1 Published / Accepted Papers

Battisti, Michele (2016), "Individual Wage Growth: the Role of Industry Experience", *Industrial Relations: A Journal of Economy and Society*, 55(1), 40-70.

Battisti, Michele, Gabriel Felbermayr and Panu Poutvaara (2016), "Immigration: What Are the Benefits for the Local Population?", in Christian Kolmer, Roland Schatz and Ramu Damodaran, eds., *Integration Index 2016*, InnoVatio Ltd.

Battisti, Michele, J. Friesen and B. Krauth (2014), "English as a Second Dialect Policy and Achievement of Aboriginal Students in British Columbia", *Canadian Public Policy* 40 (2), 182-192.

Piopiunik, Marc, Ingo. E. Isphording and Núria Rodríguez-Planas (2016), "Speaking in Numbers: The Effect of Reading Performance on Math Performance among Immigrants", *Economics Letters* 139, 52-56 (also available as CESifo Working Paper No. 5589).

Ruhose, Jens and Guido Schwerdt, (2016) "Does Early Educational Tracking Increase Migrant-Native Achievement Gaps? Differences-In-Differences Evidence Across Countries", *Economics of Education Review*, 52, 134-154 (also available as CESifo Working Paper No. 5248).

## 4.2 Working Papers

Battisti, Michele (2013), "High Wage Workers and High Wage Peers", *Ifo Working Paper* no. 168, Revise and Resubmit: *Labour Economics*.

Battisti, Michele, "Present-Biased Preferences and Optimal Compensation Schedules: A Note", submitted.

Battisti, Michele, Gabriel Felbermayr, Giovanni Peri and Panu Poutvaara (2014), "Immigration, Search, and Redistribution: A Quantitative Assessment of Native Welfare", NBER Working Paper no. 20131, CESifo, IZA Working Paper. (Revise and resubmit: Journal of the European Economic Association).

Borjas, George J., Ilpo Kauppinen and Panu Poutvaara (2014), "Self-Selection of Emigrants: Theory and Evidence on Stochastic Dominance in Observable and Unobservable Characteristics", *NBER Working Paper* no. 21649, CESifo *Working Paper* no. 5567, submitted.

Junge, Martin, Martin D. Munk and Panu Poutvaara (2014), "International Migration of Couples", *CESifo Working Paper* no. 4927, submitted.

Piopiunik, Mark and Jens Ruhose (2015), "Immigration, Regional Conditions, and Crime: Evidence from an Allocation Policy in Germany", *CESifo Working Paper* no. 5303, (also published as: *IZA Discussion Paper* no. 8962, Revise and resubmit: *European Economic Review*).

Poutvaara, Panu and Max Friedrich Steinhardt (2015), "Bitterness in Life and Attitudes towards Immigration", *SOEPpapers* no. 800.

# 4.3 Manuscripts

Battisti, Michele, Christian Dustmann and Uta Schönberg, "Technology, Polarization, and Career Paths of Workers", *Manuscript*.

Battisti, Michele, Gabriel Felbermayr and Davide Suverato, "Immigration and Labor Market Outcomes: The Role of Networks and Search", *Manuscript*.

Battisti, Michele, Ryan Michaels and Choonsung Park, "Labor Supply Within the Firm", submitted.

Danzer, Alexander M., Marc Piopiunik, and Ludger Wößmann, "Ethnic Concentration, Parents' Language Proficiency, and Children's Educational Achievement: Quasi-Experimental Evidence from Guest-Workers in Germany", *mimeo*.

Drometer, Marcus and Romuald Méango (2015), "Electoral Cycles, Partisan Effects and U.S. Immigration Policies", *Manuscript*.

Drometer, Marcus and Romuald Méango (2015), "Migration and Elections", Manuscript.

Felfe, Christina and Judith Saurer, "Birthright Citizenship – A Door Opener to Immigrant Childrens' Educational Participation and Success?", *Manuscript*.

Kauppinen, Ilpo, "Trust towards Institutions among European Immigrants", Manuscript.

Kauppinen, Ilpo and Panu Poutvaara, "Preferences for Redistribution Among Emigrants from a Welfare State", *Manuscript*.

Méango, Romuald and Till Nikolka, "Assessing the Relative Importance of Partners Characteristics in Family Migration Using Bounds", *Manuscript*.

Munk, D. Martin, Till Nikolka and Panu Poutvaara, "International Family Migration and the Dual-Earner Model", *Manuscript*.

Nikolka, Till, "Family Ties and Self-Selection into Return Migration", Manuscript.

Nikolka, Till and Panu Poutvaara, "Family Decision-Making on International Migration", *Manuscript*.

Panu Poutvaara and Martin D. Munk, "Motivations and Earnings of Emigrants from a Rich Welfare State", *Manuscript*.

Saurer, Judith, "How Do Immigrants Change Natives' Attitudes – Evidence From an Exogenous Inflow", *Manuscript*.

## 4.4 Articles in Non-refereed Journals

Battisti, Michele and Gabriel Felbermayr (2015), "Migranten im Deutschen Arbeitsmarkt: Löhne, Arbeitslosigkeit, Erwerbsquoten", *ifo Schnelldienst* 68 (20).

Battisti, Michele, Gabriel Felbermayr, and Panu Poutvaara (2015), "Arbeitsmarktchancen von Flüchtlingen in Deutschland: Ergebnisse einer Unternehmensbefragung", *ifo Schnelldienst* 68 (22).

Battisti, Michele, Gabriel Felbermayr and Panu Poutvaara (2015), "Einwanderung: Welchen Nutzen hat die einheimische Bevölkerung?", ifo Schnelldienst 68 (18).

Kauppinen, Ilpo (2013), "Inflows of Asylum Seekers to OECD Countries", *CESifo DICE Report* 11 (1), 72-74.

Leithold, Daniel (2015), "Asylum in Europe" (2015), CESifo DICE Report 13 (4), 55-58.

Nikolka, Till (2012), "Admission Criteria and Policies for Immigrant Entrepreneurs in OECD Countries", CESifo DICE Report 10 (3), 89-92.

Poutvaara, Panu and Daniela Wech (2015), "ifo Migrationsmonitor", ifo Schnelldienst 68 (23), 24-31.

# 4.5 Articles Published in Non-refereed Journals within CEMIR after the Project Period

Falck, Oliver, Gabriel Felbermayr, Anita Jacob-Puchalska and Panu Poutvaara (2016), "Arbeitsmarktchancen von Flüchtlingen", *ifo Schnelldienst* 69 (04), 83-85.

Leithold, Daniel and Katrin Oesingmann (2016), "Institutionelle Grundlagen zum Asylrecht und zur Integration von Flüchtlingen in Deutschland", *ifo Schnelldienst* 69 (01), 29-37.

Wech, Daniela (2016), "ifo Migrationsmonitor: Einwanderer und Asylbewerber in Deutschland – Zahlen, demographische Angaben, Qualifikationsstrukturen und Arbeitsmarktpartizipation", ifo Schnelldienst 69 (06), 51-58.

Nikolka, Till and Katrin Oesingmann (2016), "WES Special Question on Immigration Policies", CESifo World Economic Survey 2/2016, 25-26.

# 4.6 Media Coverage

"They Can't Imagine Not Working", The Economist, print edition, 12 July 2014.

"How Immigration Benefits Natives Despite Labour Market Imperfections and Income Redistribution", *VoxEU*, 8 August 2014.

"How Immigration Creates Jobs and Boosts Wages", World Economic Forum, 11 August 2014.

"Europe Should See Refugees as a Boon, Not a Burden", *New York Times*, 18 September 2015.

"Viele Flüchtlinge nicht für Arbeitsmarkt qualifiziert", *Frankfurter Allgemeine Zeitung*, 20 September 2015.

"Hälfte der syrischen Flüchtlinge schlecht ausgebildet", Handelsblatt, 27 October 2015.

"Refugees Will Cost Germany At Least Ten Billion Euros, Says Think Tank" *Newsweek*, 22 September 2015.

"Migrants and Refugees", Last Week Tonight with John Oliver (HBO), 27 September 2015.

"Asylpolitik: ifo-Institut schätzt Kosten für Flüchtlinge auf 21 Milliarden Euro", *Spiegel*, 10 November 2015.

"Germany May Need €21bn to House and Educate Refugees", *The Guardian*, 11 November 2015.

"20 Milliarden an Flüchtlingskosten", Frankfurter Allgemeine Zeitung, 11 November 2015.

"Die Ausgaben steigen weiter", Handelsblatt, 11 November 2015.

"ifo-Chef: Flüchtlinge kosten über 20 Milliarden – allein 2015", Die Welt, 11 November 2015.

"ifo Institut: Höhere Kosten der Integration von Flüchtlingen – Mindestlohn muss weichen", Stern, 11 November 2015.

"Es kommen vor allem Hilfskräfte", Frankfurter Allgemeine Zeitung, 12 November 2015.

"Wir schaffen das?", Faz.net, 29 December 2015.

# 4.7 Conferences and Workshops

1st CEMIR Conference on International Migration, 14-15 December 2012, Ifo Institute, Munich.

Intensive Course on Migration Research, 28 February - 02 March 2013, Ifo Institute, Munich. Lecturer: Christian Dustmann.

Junior Economist Workshop on Migration Research, 18-19 October 2013, Ifo Institute, Munich. Keynote speaker: Christian Dustmann.

CESifo Economic Studies & CEMIR Conference on Migration, 13-14 December 2013, Ifo Institute, Munich.

Ifo Conference on "Migration and the Welfare State: Why is America Different from Europe?", 12 December 2014, Ifo Institute, Munich.

CEMIR and UC Davis Workshop on Advances in Migration Research, 01-02 May 2015, Davis, California, USA.

CEMIR Junior Economist Workshop on Migration Research, 29-30 May 2015, Ifo Institute, Munich. Keynote speaker: Matz Dahlberg.

# 4.8 Policy Events / Dissemination Activities

CEMIR Konferenz 2015: Internationale Migration und Europa, 10 November 2015, Leibniz Association, Berlin. Speakers: Gabriel Felbermayr, Panu Poutvaara. Panel participants: Hans Werner Sinn, Hans-Peter Friedrich, Reiner Klingholz.

CEMIR Vortrag zur Flüchtlingskrise, 17 December 2015, Ifo Institute, Munich, Speaker: Panu Poutvaara. Panel discussion.

# 5. Schedule A: Project Milestones

	2012	2013	2014 / 2015
M 1.1: Welfare Effects of Migrant Inflows with Skill Complementarities	Analysis completed	Article submitted	Revisions
M 1.2: Optimal Immigration Policy with and without Delayed Access to Welfare Benefits	Analysis completed	Article submitted	Revisions
M 1.3: International Migration and Location Choices		Analysis started	Article submitted
M 2.1: Migration and Political Support for the Welfare State	Analysis started	Article submitted	Revisions
M 2.2: Voting on Migration	Analysis started	Article submitted	Revisions
M 2.3: Gender Dimension in the Political Support for Migration and its Effects on Redistribution		Analysis started	Article submitted
M 3.1: Determinants of Educational Outcomes of Students with Migration Background	Analysis completed	Article submitted	Revisions
M 3.2: Effectiveness of Language Courses for Parents		Analysis completed	Article submitted
M 3.3: Effectiveness of Pre-school Language Courses			Analysis completed and article submitted
M 4.1: Work Incentives for Natives and Immigrants after Hartz IV	Analysis completed	Article submitted	Revisions
M 4.2: Income Inequality among Germans / Immigrants after Hartz IV		Article submitted	Revisions
M 4.3: The Effects of Intermarriage		Article submitted	Revisions
M 5.1: The Challenge to Attract High Skilled Immigrants in Germany	Analysis completed, Article in progress	Article submitted	Revisions
M 5.2: The Challenge to Keep High Skilled Germans	Analysis completed	Article submitted	Revisions
M 5.3: Lessons from Danish Survey Data on the Migration of Students and Researchers		Article submitted	Revisions
M 5.4: Capital Flows and Migration Flows		Analysis completed	Article submitted
M 5.5 Gravity for Migrants: The role of a Third Market Effect	Analysis completed	Article submitted	Revisions

	2012	2013	2014 / 2015
Integrated Assessment Model		Work started	Analysis completed; results disseminated, both to policy makers and academically
Network and Conferences	1st CEMIR Conference at Ifo	1st Conference on Migration at Ifo hosted and financed by CESifo	2nd CEMIR Conference at Ifo
	1st CEMIR Workshop at Ifo	2nd CEMIR Workshop	3rd CEMIR Work- shop
	1. Münchener Dialoge zu Migration	2. Münchener Dialoge zu Migration	2. Münchener Dialoge zu Migration

# 5. Schedule B: Progress

	Articles published	Working papers	Manuscripts	
Module 1: Optimal Immigration Policies with Skill Complementari- ties and Redistribution	3	3	3	
Module 2: The Political Economy of Immigration and the Welfare State		1	4	
Module 3: Integration of Immigrants' Children through the Education System	2	1	1	
Module 4: Economic and Social Integration of Immigrants			2	
Module 5: International Competition for Talent and Brain Circulation		2	5	
	Dis	semination Activit	ties	
Integrated Assessment Model	<ul> <li>Extensive media coverage, 7 articles in non-refereed journals (ifo Schnelldienst, CESifo DICE Report);</li> <li>Ongoing CEMIR activity with 3 articles published until May 2016 after the project period.</li> </ul>			
Network and Conferences	<ul> <li>4 conferences on migration research in Munich and Davis;</li> <li>2 junior economist workshops on migration research (an additional workshop to be held in June 2016 as ongoing CEMIR activity);</li> <li>2 CEMIR policy events in Berlin and Munich,</li> <li>CEMIR Lunchtime Seminar Series with internal and external participants.</li> </ul>			