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Knowledge for INtegration Governance

The Impact of Demand and Supply Structural Factors on Native-Migrant Labour Market Gaps

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KING - Knowledge for INtegration Governance

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The KING project's objective is to elaborate a report on the **state of play** of migrant integration in Europe through an interdisciplinary approach and to provide decision- and policy-makers with **evidence-based recommendations** on the design of migrant integration-related policies and on the way they should be articulated between different policy-making levels of governance.

Migrant integration is a truly multi-faceted process. The contribution of the insights offered by different disciplines is thus essential in order better to grasp the various aspects of the presence of migrants in European societies. This is why **multidisciplinarity** is at the core of the KING research project, whose Advisory Board comprises experts of seven different disciplines:

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The project consists in the conduct of preliminary desk research followed by an empirical in-depth analysis of specific key topics identified within the desk research. To carry out these two tasks, each Advisory Board member chose and coordinated a team of two to five researchers, who have been assigned a range of topics to cover.

The present paper belongs to the series of contributions produced by the researchers of the “Economics” team directed by Professors Martin Kahanec and Alessandra Venturini :

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The impact of demand and supply structural factors on native-migrant labour market gaps*

DESK RESEARCH

1. INTRODUCTION

The Member States of the European Union (EU) exhibit remarkable diversity in terms of the share of foreign nationals within their labor force and in the way the employment of foreign nationals is structured and rewarded. There is a shared understanding among scholars that in addition to migration policies and general economic conditions, a number of other factors are also important in explaining migration outcomes. These determinants might be institutional as well as structural, and have been primarily analyzed in relation to explaining levels of migration and migrants' skill composition. In this study we investigate non-migration policies, institutions and supply and demand conditions in host countries in greater detail, and look at their role in explaining native-immigrant labor market gaps.

In general, the influence of national institutional factors on economic immigration has so far been little studied. In this report we adopt the framework of comparative capitalisms scholarship, which argues that different types of socio-economic regimes can be systematically identified across advanced economies. These regimes are characterized by institutional complementarities interlinking economic, industrial relations, employment, welfare, and education and training regimes. The “Varieties of Capitalism” framework (VoC) and its extensions (Hall and Soskice 2001; Hancké, Rhodes and Thatcher, 2007; Hall and Gingerich, 2004) as well as (related) welfare regimes typology (Esping-Andersen 1990, 1999; Ebbinghaus, 2012) enable us to empirically approximate this systematic institutional variation and study the impact of non-migration policies, institutions and supply and demand conditions on economic migration and native-immigrant gaps in participation, employment and unemployment, and job quality in particular.

Institutional design can affect immigration in terms of its levels, composition and the labor market outcomes of the immigrants, both directly and indirectly. For example, access to welfare benefits in host country can directly influence migrants' decisions, affecting levels of migration. The level of inclusion and openness of the welfare systems to immigrants (e.g. access to unemployment benefits, active labor market policies, etc.) is likely to have an impact on their chances on the labor market, and so affect native-immigrant gaps in labor market outcomes. Education and skill formation systems can further shape migrants' human capital, improving their chances in host country labor market by providing country-specific human capital and knowledge.

Recent migration and labor market literature has also highlighted the role of the migrant labor force in

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providing flexibility, which benefits host country employers by meeting demand for a more flexible labor force (Kahanec and Zimmermann, 2015). There are large cross-sectoral and cross-national differences within the EU regarding the extent to which a flexible workforce is needed, and how it is structurally accommodated and linked to the rest of the economy (Meardi et al., 2012; Devitt, 2011). Employers and labor unions are likely to have varied preferences with respect to migration levels and skill composition, reflecting structural conditions in the given economy. The type of industrial relations and strength of bargaining systems shapes stakeholders' attitudes, which are reflected in preferences in legislature concerning labor standards and tolerance of precarious work, which is often dominated by immigrant workers (Kahancová and Szabo, 2012; Meardi et al. 2012).

Below, we begin by reviewing existing studies that test the impact of non-migration policies in host countries on migration rates, the skill composition of migrants, and their labor market outcomes. The empirical section which then follows provides analysis of the extent to which non-migration policies and institutions can explain native-immigrant gaps in labor market outcomes. This will be tested using an aggregate country-level regime typology, but also by testing the key variables independently, including in particular: welfare system (welfare regime typology); labor market regulation (EPL index); industrial relations (levels of unionization and collective bargaining coverage); and the openness of the labor market.

2. GENERAL PERSPECTIVE ON VoC AND NATIONAL INSTITUTIONS

Comparative capitalism literature has identified systematic differences across advanced economies in their socio-economic regimes covering industrial relations, education and training, employment and welfare systems, as well as in their industrial structure and product markets.

The categorization of countries into different types of economies characterized by these institutional complementarities can help us to proxy non-migration policies, institutions and supply and demand conditions, and to test their role in explaining immigrant-native gaps in the host countries' labor markets.

The seminal work by Hall and Soskice (2001) inspired a large body of literature, which has studied systematic institutional differences between advanced economies. The original VoC framework proposed two ideal types of economies: coordinated market economies (CMEs) and liberal market economies (LMEs), and presented institutional complementarities in several key institutional areas: financial systems and corporate governance, industrial relations and labor markets, vocational education and training, and welfare systems. Institutional design affects inter-firm relations in profound ways and a given "comparative institutional advantage" gives predisposition to succeed in different types of product markets. Hall and Soskice (2001) argue that skill formation systems and industrial relations systems are interlinked, and that CMEs tend to excel in specific skills, while general skills prevail in LMEs. Prevalence of a given skill type is sustained by other institutional areas; for example, skill-specific economies are characterized by more extensive welfare regimes, which help workers to overcome periods of labor market risk (Estevez-Abe, Iversen and Soskice, 2001). Further, industrial relations are more developed in these economies, as employers' associations and unions engage in collective bargaining to negotiate over working conditions, wages and skill development, in order to preserve the existing skill advantage.

The VoC framework has been extended to apply to all EU countries, including new member states, which have been clustered into 'types of economies' which share similarities in institutional design. This literature broadly classifies three such types of economies: coordinated market economies, liberal market

economies, and mixed market economies (Hancké, Rhodes and Thatcher, 2007), which are also known as Mediterranean statist/conservative regime economies (Devitt, 2011; Meardi et al., 2012). Some later applications treat Germany's continental coordinated market economy separately from the Nordic model of coordinated capitalism (Martin and Thelen, 2007, Palier and Thelen, 2010). There have also been attempts to order advanced economies on a coordination continuum (Hall and Gingerich, 2004).

We further extend VoC classification to include new EU member states, following Hancké, Rhodes and Thatcher (2007), whose volume classifies these countries as EMEs (emerging market economies).

Bohle and Greskovits (2012) develop a different classification, arguing that there is systematic variation between post-communist European countries; they classify these regimes as neo-corporatist, embedded neo-liberal, and liberal. We will build on these typologies in the empirical sections of this study, and use them as summary measures to proxy systematic institutional differences across host countries when analyzing the role of non-migration policies and demand and supply conditions.

3. LINKING SOCIO-ECONOMIC REGIMES AND MIGRATION

Differences in systems of political economy, including corporations' production strategies, the sectoral composition of the economy, labor market regulation and institutional design, contribute to shaping migration policy.

The relative size and importance of component sectors of the economy (primary-secondary-tertiary) can affect the desired profiles of economic migrants.

Coordinated market economies are generally associated with lower levels of immigration than liberal market economies and the Mediterranean-statist model of economy.

The stakeholders in different systems of political economy seek to influence governments to adopt labor migration policies which attract migrants deemed complementary to national production strategies.

Due to the higher complementarities and greater benefits expected from high-skilled migrants, all countries grant more extensive rights to high-skilled migrants than to low-skilled migrants irrespective of institutional configuration and economic structure.

Studies conducted in the framework of VoC literature have drawn links between different types of socio-economic regimes and migration, and proposed a number of implications for migration outcomes (flows, costs and benefits). Other studies have focused on analyzing the role of a particular set of non-migration policies and institutions (e.g. minimum wage regulation, labor market regulation, etc.) on migration. In our empirical section, we follow both of these approaches.

Devitt (2011) has argued that existing theories of labor migration fall short of providing sufficient explanations for the variation observed in terms of the level and types of economic immigration across states. She finds that in addition to having different levels of immigration, the Nordic countries employ comparatively fewer migrants in hotels, restaurants, retail, and construction than other countries; Southern European states employ a large share of immigrants in households; and the UK and Ireland particularly attract migrants to work in the health and community service sectors. She argues that socio-economic

regime variation has contributed to both quantitative and qualitative variation in migrant labor across Western Europe and over time. Western European economic and labor market institutions generate low-paid, low-skilled employment attractive to many migrant workers, to different degrees and of different kinds. Moreover, both welfare systems and education and training institutions shape the domestic labor supply labor in diverse ways across Western Europe, which in turn affects the quantity and skill set of economic migrants demanded across EU labor markets.

Kahancová and Szabo (2012) conclude that coordinated market economies (with encompassing or dualized bargaining systems) are associated with lower levels of immigration than liberal market economies and the Mediterranean-statist model economy (see also Devitt 2011). Accordingly, the costs and benefits of migration for the immigrants themselves and for the host societies also differ in each of these systems. While it is hard for a migrant to find an entry point into the Scandinavian labor markets, once one is found, the migrant is more likely to achieve equal wages and upward mobility than in the countries with different economic models. Likewise, in Germany's dualized bargaining system, the extension of the fringes of the economy led to the provision of employment opportunities for migrants who were previously completely excluded from the labor market, but this resulted in limited upward mobility, and a redistributive struggle between insider (nationals) and outsider (non-nationals) over welfare services.

In his article, Menz (2003) combines insights from the VoC framework with migration studies. He argues that the organizational power and preferences of trade unions and employers' associations shape national response strategies to migration policy. Different "models" of politico-economic governance therefore generate divergent responses to the common impetus of EU-induced economic liberalization, based on the domestic configuration of relevant interest associations. In his book, Menz (2009) shows that migration policy is strongly influenced by differences between systems of political economy, in particular the nexus of corporations' production strategies, the sectoral composition of the economy, and labor market regulation. Employers and unions embedded in different systems of political economy will seek to influence governments to adopt labor migration policies that reflect the profile of migrants which they deem complementary to national production strategies. Menz (2009) further argues that the relative size of component sectors of the economy (primary-secondary-tertiary) and the relative importance of these sectors will affect the profile of economic migrants deemed desirable by employers' associations.

According to Anderson and Ruhs (2008), the institutional structure and regulatory framework of the British labor market is characterized by deregulation and flexibilization, with the role of trade union membership reduced. Together with economic and public policies (long-term sector restructuring, specific public training programs or lack thereof, the incentives of the benefit system, and the need for effective public service provision), this may have affected employers' decisions concerning staff shortages. For example, employers in the construction sector reduced their investments in training and labor saving technology due to immigration, which influenced sector restructuring. Policy changes also had similar impacts on wages and placement in the health and care sector.

Ruhs (2011) studies the link between openness of migration policy and the skills and rights granted to migrants, and argues that high-income economies are more open to high-skilled migration than low-skilled migration. Thanks to the higher complementarities and greater benefits expected from high-skilled migrants, all countries grant more extensive rights to high-skilled migrants than to low-skilled migrants. Contrary to other studies, which link migration outcome to institutional variation across countries, Ruhs (2011) argues that institutional variation across countries is likely to affect how strong the trade-off between openness to migration and rights granted to migrants is, but not the fact that trade-off and a preference for high-skilled migrants exists.

Nordin and Rooth (2007) study the income gap between second-generation migrants and natives in Sweden. The authors focus on male migrants born and living in Sweden in 2003 whose parents were born

outside the country, controlling for the parents' countries of origin and characteristics. They find that for those whose parents were born in Southern Europe or outside Europe the immigrant-native income gap is almost fully explained by skill differences. Controlling for other variables, including schooling, the authors find that the unexplained income gap increases over the studied period. Meanwhile, for migrants whose parents were from Western or Eastern Europe, the income difference is positive compared to natives. Based on this data, the authors point out the differences in human capital between these second-generation migrant groups, and emphasize that, unlike findings in previous studies suggesting that ethnic discrimination might be the reason for the existing income gap in Sweden, a 6-12% income gap for migrants whose parents originated from Southern Europe or outside Europe can in fact be explained by skill difference.

The Danish economic model, the so-called “flexicurity” model, combines “high levels of welfare provision, active employment policies, wage compression, and low hiring and firing costs” and “likely contributes to high participation rates, low unemployment, and high levels of income redistribution in Denmark”. At the same time, certain institutional features create barriers for immigrants. Immigrants’ integration may be negatively affected by the high skill bias of the occupational structure in Denmark. Moreover, labor shortages in unskilled sectors may not help immigrants as much as the natives in accessing jobs needing higher skills or promotion to “better jobs”, due to limited transferability of general skills acquired abroad (Brodmann and Polavieja 2010). In the next sections we look closely at individual types of regime in more detail.

3.1. Education and human capital

Immigrants' supply of human capital is a function of their endowment upon arrival and human capital acquired in their receiving countries.

Education and skill formation regimes in host countries can affect migration by shaping preferences and needs for certain types of skills (general or specific, high or low), but also by offering additional possibilities for education and training and through skill recognition systems.

Immigrants' supply of human capital is a function of their endowment upon arrival (which may be a function of immigration policies) and of the human capital they have acquired in their receiving countries; this may be a function of the educational system. Some educational systems are more open to immigrants than others. Education and skill formation regimes in host countries can affect migration by shaping preferences and needs for certain types of skills, and by determining skill recognition frameworks, and in particular their accessibility for those in certified and licensed professions.

3.1.1 Skill specificities and demand for labor

Differences in product market strategies and sectoral composition will cause CMEs to be interested in migrants with specific skills and LME employers to prefer migrants with general and transferable skills, who are better able to respond to flexible corporate strategies. Employers in mixed and emerging market economies (MMEs and EMEs) will have more divided preferences and strategies.

The skill specificity of a given production regime is sustained by its education and training systems: general skills are easily transferable across firms and industries, and are predominantly produced in public education systems, while industry-specific skills are produced in a system that combines on-the-job training with education in a public institution ('dual systems').

Firm-specific skills are mainly provided within companies and are the least transferable. Social partners, especially employers, are most intensively involved in dual skill formation systems; this affects their knowledge and trust of the system and the importance given to formal qualifications and certification processes.

From the perspective of migration, migrants' access and integration in the host country labor market appears to be the least difficult in general skill regimes where less emphasis is given to formal education and skill certification, while access to adequate employment is most complicated in dual skill formation regimes, where education and skill licensing is highly formalized.

The institutional literature on the variety of welfare regimes and the varieties of capitalism can be extended towards the typology of vocational education regimes and skill differentiation (Atzmüller, 2012; Hall and Soskice, 2001). Three 'regimes' are typically defined; these differ according to the type of skills that prevail in the given economy: general, occupational or industry-specific, or firm-specific skills (Crouch et al., 1999; Atzmüller, 2012). Each skill type requires a different system of training and assumes a particular type of product market strategy (Lauder et al., 2008). General skills are easily transferable across firms and industries, and are predominantly produced in public education systems (schools, universities). Industry-specific skills are produced in a system that combines on-the-job training with education in a public institution ('dual system'), providing skills typically portable across firms within an industry/occupation, but no further. Firm-specific skills are mainly provided within companies, and are the least transferable.

An important factor on which the differentiation in skill regimes is based is the extent of institutionalization and, related to this, the degree of involvement (financial, educational, political, etc.) of stakeholders in a given skill formation regime (Lucio et al., 2007). In more institutionalized systems, involvement of social partners and employers in the education system is greater; this affects skill transparency, and the 'trust' and understanding of a given system. Andersen and van de Werfhorst (2010) find that countries with highly transparent educational systems (i.e. extensive tracking, strong vocational orientation, limited tertiary enrolment) tend to be characterized by a strong relationship between education and occupational status. This might also imply greater reliance on formal qualifications in screening and recruitment processes (Kureková, Beblavý, Haita and Thum, 2013).

Of these three skill regimes, employers in dual systems (e.g. Germany, Denmark and the Czech Republic) are the most likely to rely on formal qualifications and certification, while degrees are less important in firm-based skill formation systems (such as Japan and Korea) and in general skill regimes (e.g. the UK). From the perspective of migrants, their access/integration into the host labor market should be the least difficult in general skill regimes, where less emphasis is given to formal education and skill certification, while access to employment matching their qualifications is most complicated in dual skill formation regimes, where education and skill licensing is highly formalized. This has implications for systems of skill recognition (IOM

2013). A common indicator to measure a country's vocational orientation and the skill-specificity of its economy is the “vocational orientation index”, which measures the share of students within upper secondary education enrolled in vocational training (OECD, 1998, Van de Werfhorst, 2011, Busemeyer and Thelen, 2013).

In her summary of socioeconomic regime variation, Devitt (2011) points out that education and training institutions in Nordic regimes (Sweden, Denmark, and Finland) provide high levels of both general education and vocational education and training (VET), as well as investing much into active labor market policies; conservative-continental regimes (Germany, Austria, the Netherlands and Belgium) have strong traditions of firm-based VET (in the so-called dual system); Southern-statist regimes (Italy, Greece, Spain, Portugal, France) are characterized by a tradition of state-managed VET; and in the liberal model (the UK and Ireland), emphasis is put on general education with the state taking a hands-off approach to the provision of vocational education and training. The involvement of social partners in these systems influences how in tune employers and the education system are. Greater mismatches are likely in Southern-statist and liberal regimes, where institutional ties between employers and education systems are weaker, while better matching is likely to appear in the Nordic and conservative-continental systems, where the social partners communicate closely and have a stronger impact on the role of VET (Crouch et al., 1999; Kureková, Beblavý, Haita and Thum, 2013). Devitt (2010) studies the same relationship in reverse: how the ‘migrant worker factor’ contributed to reform of labor market policies and vocational education systems in Ireland and the UK.

Menz (2009) analyzes the non-state actors' – employers' associations' and unions' - preferences in migration policy, and links these to the skill specificity issue. Using the extended typology given by Hancké, Rhodes and Thatcher, 2007, he anticipates that gradual innovation and concentration on high value-added production in CMEs, together with more radical innovation in LMEs, will result in the CME economies becoming interested in migrants with specific skills, while LME employers seek migrants who have general and transferable skills and are therefore able to respond more readily to flexible corporate strategies. Furthermore, employers in the mixed and emerging market economies (MMEs and EMEs) will have more divided strategies and their preferences will reflect the structural model that they are approaching.

3.1.2 Active labor market policies and training

Access to education and training policies, and to other types of focused integration measures for migrants, varies across countries. The degree of accessibility is related to welfare regime type and overall social spending levels.

In general, labor market policies and other integration measures are more extensively offered to migrants in Nordic countries and liberal economies than in other regime types.

Treatment of migrants in active labor market measures has been shown to have a significant positive impact on their labor market inclusion prospects (which is by-and-large not found to be the case for the general population).

Knowledge of the national language is the key factor to success in the labor market as well as to meaningful participation in other types of training in host countries.

Education and training can be provided to migrants both in the form of targeted integration policies and through provision of second-chance education and training, which is often provided in the framework of active labor market policies (ALMPs). In many labor markets, immigrants belong to disadvantaged groups

and are targeted by active labor market policies due to their particular disadvantage (e.g. long-term unemployment, ethnic minorities). Knowledge of the host country language has been identified as the key integration and assimilation factor; nevertheless, migrants may also need to gain other types of skills or to enroll in host country education due to difficulties with recognition of qualifications earned prior to migration.

Access to education and training policies varies across countries and is related to welfare regime type and overall spending levels. By and large, the Nordic countries are known to invest heavily in ALMPs and support migrants with various integration measures; this is also reflected in these countries' high scores in the MIPEX migration policy index. In addition to these countries, those with liberal models have started to invest more over recent decades into activating the unemployed and economically inactive (Devitt 2011). Given that these countries (the UK, Ireland) are high recipients of migrants who might face disadvantages, these policies often in effect target disadvantaged immigrants.

In Germany, there are significant employment participation and earning gaps between natives and second-generation migrants due to the latter group's low educational level and insufficient vocational training. Until recently, migration policies in Germany did not focus on the integration of guest-workers, and paid insufficient attention to language skills and other skills necessary for successful economic and social integration; this created barriers for successful employment. Zimmermann et al. (2008) state that "deficits of economic integration are exacerbated by the regional location of many of Germany's ethnic populations" citing the uneven distribution of ethnic populations across Germany. The authors stress the importance of the 2005 Immigration Act and the 2006 National Integration Plan, which aimed to improve immigrant employment probabilities, focusing on the integration of existing ethnic groups as well as amendments to entry requirements designed to improve the employability of new immigrants.

While evaluating the impact of ALMP on immigrants' labor market outcomes specifically is difficult due to a lack of available data, some studies do exist. Heinesen, Husted and Rosholm (2011) estimate the effect of active labor market programs on the exit rate to regular employment for non-western immigrants who receive social assistance in Denmark. Their analysis, based on rich administrative data, shows both substantial positive post-program effects and generally positive in-program effects. The effects are largest for subsidized employment programs, but the impact is also strong and significant for direct employment programs and other programs.

Clausen et al (2009) analyze the effect of active labor market programs in Denmark on the hazard rate into regular employment for newly arrived immigrants, taking into account language course participation and progression in destination country language skills. They find substantial lock-in effects from participation in active labor-market programs. Post-program effects on the hazard rate to regular employment are significantly positive for wage subsidy programs; however, the same is not true for other types of programs. Improvement in language proficiency has significant and substantive positive effects on the hazard rate to employment.

Kureková, Bulková and Borovanová (2012) used a quasi-experimental method to measure the impact of training in e-skills on the labor market integration of various immigrant women, focusing on Ukrainian, Russian and Vietnamese females in the Slovak labor market. They identify a strong interest for this type of training among the immigrant women. While the researchers were unable to quantify the effect of the training in a rigorous manner, the participating women evaluated their participation in the training as beneficial for their future labor market prospects. The study also finds that knowledge of the national language is key to success in the labor market, as well as to meaningful participation in other types of training; training in the national language should be therefore offered before any other type of training is provided to immigrants.

Garrido et al. (2009) examine three paths to improved employability, based on an original survey of 375 immigrant and 155 native-born women in four European countries: Hungary, Italy, the Netherlands and Spain. The three paths are: education and lifelong learning, social inclusion, and cultural inclusion. Their findings suggest that strengthening e-skills among immigrant women is an important factor in advancing along these three paths, potentially improving women's position in the labor market.

3.1.3 Skill recognition and downgrading

Poor recognition of qualifications is one of the key institutional factors explaining downskilling of migrants.

In several countries, recognition of foreign qualifications has been shown to have a statistically significant positive effect on migrant employability and career development.

Lack of recognition of qualifications gained in their home country can be a key factor in explaining immigrants' labor market outcomes and the native-immigrant gap. Indeed, the 2012 IZA Expert Opinion Survey investigated the key factors contributing to a mismatch between migrants' relatively high level of formal qualifications and their low-skilled jobs. Expert stakeholders in EU27 countries identified difficulties in recognition of qualifications as the key factor explaining the downskilling of migrants— as many as 52% of experts considered this factor important (the next most important were discriminatory attitudes (42%) and institutional barriers in legal framework (35%)) (Kahanec, Zimmermann, Kureková, Biavaschi 2013).

IOM (2013) assembles a detailed analysis of the institutional design of key receiving countries among advanced economies, with respect to recognition of immigrants' qualifications and prospects for further education offered by the countries' respective education and training systems or other integration measures. In Australia, Denmark and Italy, statistical evidence exists to demonstrate the positive impact recognition of foreign qualifications has on migrant employability and career development. However, recognition of qualifications and competences alone might not be sufficient to improve immigrants' labor market outcomes. Downskilling may result from a mix of different factors, the relative importance of which varies according to the individual's situation. For example, a key barrier for non-Western migrants is discrimination, which might continue to prohibit inclusion into sustainable employment even after full recognition of foreign qualifications and competences. For certain categories of migrants – mainly the medium-skilled and those in medical or other regulated professions which require very specific knowledge – a lack of adequate knowledge of the host-country language may be an obstacle to appropriate labor market insertion in their destination country. The study points out that local language knowledge is likely to be less crucial for the most highly skilled with recognized qualifications, as they generally target jobs that make extensive use of the English language. The study also emphasizes the importance of recognizing informal and on-the-job learning for migrants' prospects.

Zimmermann et al. (2008) study the labor market integration of immigrant groups in different countries across Europe. Their Dutch case study shows that ethnic labor force participation and earning gaps improved as a result of favorable macroeconomic conditions and private and public integration policies in the Netherlands, such as Dutch language and citizenship courses (resident immigrants only qualify for social benefits after having passed a language exam) and the decentralization of education and labor market policies to local authorities. Zimmermann et al. (2008) explain that in the Netherlands a social economic council is responsible for providing assistance and recommendations to employers on hiring minority workers and their further skill upgrading in the labor market. At the same time, native-immigrant gaps in the Netherlands remain, aggravated by limited language knowledge and, as a consequence, negative perceptions by the native population.

In France, labor market access and integration are complicated by existing barriers, which often explicitly exclude non-citizens from a number of professions: civil servants, lawyers, doctors, dentists, midwives,

surgeons, pharmacists, brokers, chartered accountants, bailiffs, notaries, etc. (Zimmermann et al., 2008). In addition, immigrants' educational attainment is lower than that of the natives'. The authors argue that labor market barriers are caused by a combination of factors including imposed regulations, social class differences and ethnic isolation. At the same time, labor market prospects for ethnic groups are improving due to additional efforts made by private companies, which encourage diversification in recruitment through various tools.

The Spanish case study in Zimmermann et al. (2008) explains how differences in labor market treatment, linguistic abilities and skill transferability affected immigrants' experiences of occupational transitions. The private sector in Spain has made efforts to increase the number of legal immigrants, while employer councils and the Spanish government have also cooperated on measures to regularize the status of illegal immigrants.

Kahanec, Zimmermann, Kureková and Biavaschi (2013) show that the recognition of qualifications plays a particularly important role in German migration policy, and that this makes the immigration procedure lengthy and costly. Although some initiatives to improve the situation have been implemented recently, including a new Federal Law on Recognition of Foreign Qualifications, the process continues to be cumbersome, expensive and complicated on the level of federal states (IOM, 2013). Kahanec et al. (2013) suggest that this might be creating barriers for better skilled migrants in particular, possibly redirecting them to countries with more favorable frameworks, or influencing their decision to become self-employed in order to enter their host country's labor market.

Researching skill premia and immigrant-native wage gaps, Rosso (2013) argues for collaboration between the sending and receiving countries, in order to avoid occupational downgrading caused by poor skill transferability. She contends that transferability of educational level should be easier, while at the same time educational quality should be increased. However, this type of collaboration might well increase emigration to the detriment of the domestic labor market, and so may not appear to be in sending countries' interests.

In their study on the immigrant earnings disadvantage in Ireland, Barrett, McGuinness and O'Brien (2012) suggest that the existing 30%-45% immigrant-native wage gap observed among migrants from New Member States (found by Barrett and McCarthy, 2007a; 2007b) may be caused by various factors: low-skilled immigrant exploitation in secondary immigrant markets; high-skilled immigrants' inability to access high-paying jobs; difficulties in qualification recognition, or the (significant) importance of location-specific human capital.

3.2. Welfare regimes

Scholars argue that there are institutional complementarities between minimalist welfare arrangements, liberal migrant admission policies, and underdeveloped integration policies.

Although historically immigrants' access to welfare has improved, advanced countries continue to limit immigrants' social rights. Governments are more likely to grant social rights to high skilled immigrants than to low skilled immigrants.

Despite existing barriers, a large body of literature analyzes the extent to which welfare regimes in host countries affect migrants' choice of destination and their subsequent labor market integration patterns.

Evidence on migrants' welfare usage versus that of natives, and on the fiscal effects of immigration, varies across countries and over time. Host countries' institutional structures and the character of their welfare regimes in particular are important factors in explaining the net fiscal impact of migration.

Welfare systems and welfare regimes in particular have been extensively analyzed in migration studies as an important pull factor. This abundant literature has studied how different types of Western welfare regimes affect rates of immigration and the skill composition of immigrant flows, and analyzed differences in reliance on welfare systems between nationals and immigrants (e.g. Heitmueller, 2002; Warin and Svaton, 2008; Bommess and Geddes, 2000; Schierup, Hansen, and Castles, 2006; Barrett and McCarthy, 2008; Nannestad, 2007). Researchers attribute low labor market participation rates among some immigrant groups to welfare-based factors, such as low income incentives to work, as a result of high social benefits and high wage compression (Nannestad, 2004; OECD, 2002).

Welfare systems can be understood as a set of institutions and policies (such as Labor Offices, re-training courses, unemployment benefit systems, and social assistance schemes) which provide public services (education, health care) but also have the potential to intervene directly or indirectly in the functioning of labor markets, by addressing various market failures (Kureková, 2013, see also Devitt, 2011). However, access to welfare, either in the form of services (education, healthcare) or social insurance (social assistance, unemployment benefits, pensions) is highly regulated by various eligibility criteria. The ability to draw on such services is a function of many factors, such as length of presence on the labor market, history of contributions, age, marital status, and citizenship. Relative gains from welfare vary, and are an outcome of social and political compromises among different social groups within countries (Vanhuysse, 2006; Artiles and Meardi, 2014). Advanced economies often place additional restrictions on immigrants' access to welfare (Kureková, 2013; Kvist, 2004; Kubal, 2009; Carrera, 2005). This results in dynamic effects of inclusion and exclusion for different groups and cohorts, such that migrants and their families face different barriers across countries and over time (Hemerijck et al., 2013).

Welfare regimes literature analyzes how key institutional and policy variables systematically relate to one another and produce distinctive 'social Europe' worlds. Esping-Andersen (1990, 1999) was the first to make investigations in this field, and has had many followers since (Ebbinghaus, 2012; Hemerijck et al., 2013). These scholars have identified a set of welfare regimes which are typically classified in the following ways: Hemerijck et al (2013) identify groups which they call Anglophone (e.g. UK), continental (e.g. Netherlands and Germany), and southern (Spain). Ebbinghaus (2012), Esping-Andersen (1990), and Artiles and Meardi (2014) propose a social democratic or Nordic category (Denmark, Finland, the Netherlands, Norway and Sweden), a Christian democratic or continental category (Austria, Belgium, France, Germany, Spain and Italy), a liberal or residual category (Australia, Canada, Japan, Switzerland, the US, Ireland, New Zealand, and the UK), and a Central European category (new EU member states). Makszin (2013) labels post-communist welfare regimes "patchwork". Scholars have demonstrated that there are relatively strong institutional complementarities between minimalist welfare arrangements, open migrant admission policies, and underdeveloped integration policies (e.g. Menz, 2003; Bommess and Geddes, 2000; IOM, 2005; Ruhs, 2011).

Koettl, Holzmann, and Scarpetta (2006) shows that states can not only affect migration directly through immigration or emigration policy, but also indirectly through social protection and labor market policies. He argues that social security benefit portability and access to health care and pension benefits are crucial for encouraging temporary or circular migration. He also suggests that introducing a social safety net in the source country can affect migration flows by decreasing inequality in the sending country and subsequently decreasing the emigration of low-skilled workers to countries with even lower inequality. Along similar lines, some recent migration literature has begun to emphasize the need to invest in sending countries' institutions in order to make full use of the potential benefits of migration for sending countries, to curb migration from developing countries, and to facilitate return migration (e.g. de Haas and Vezzolli, 2010; Holzmann et al., 2005).

A historical overview of welfare regimes and migration dynamics in Europe by Hemerijck et al. (2013) shows that favorable migration policies in Western Europe attracted migrants from former colonies as

labor demand increased in Western Europe during post war economic boom; at the same time, those immigrants enjoyed only restricted social benefits, despite paying social contributions and taxes. In the early 1970s, labor migration policies in these countries changed, particularly affecting low-skilled migrants. Although migrants were perceived as temporary labor, most chose to stay in the host countries; gradually, immigrants' social status has changed due to greater emphasis on equality, non-discrimination and human rights principles in the host countries' legal systems. Migrants' social rights were extended to include access to welfare benefits and family reunification. In the 1990s, this social policy had to be altered once more due to inflows of asylum-seekers and refugees.

Hemerijck et al. (2013) further argue that important reforms in the social sector that were implemented in the UK in the 1960s and 1970s were favorable towards immigrants, especially in terms of non-discrimination regulations leading to increased employment opportunities, greater social rights, and improved access to work related benefits. However, since the 1970s migration laws and entry requirements have become stricter, linking taxes to residence status and forbidding “recourse to public funds” for immigrants. Such regulations focus particularly on the low-skilled immigrant labor force. Additional policies have been aimed at preventing migrants (especially from non-EU countries) from accessing non-contributory welfare.

The last two decades have been marked by increased inclusivity, although in practice administratively burdensome procedures have had a significant negative impact on immigrants' social rights. The point system introduced in the UK in 2008 made entry more difficult for low-skilled migrants. The authors conclude that there is a “close link between migration policy and access to welfare benefits and services” and that in the UK this link is stronger than in the other countries the study reviews. They emphasize that entry requirements and immigration rules play a more important role than social and welfare policy in terms of the social rights of migrants, especially from non-EU countries.

Despite these barriers, a large body of literature analyzes the extent to which welfare systems in host countries affect migration decisions and labor market integration patterns among migrants. Evidence on migrants' welfare usage versus that of natives, as well as on the fiscal effects of immigration, is inconclusive. Kaczmarczyk (2013) provides a comprehensive theoretical and empirical overview of this issue and concludes that the type of migration, labor market incorporation, and the structure of the welfare state in the host country, all combine to determine the fiscal impact of migration and migrants' welfare usage.

In a study on the economic impacts of immigration, Kerr and Kerr (2011) argue that migrants rely more on welfare benefits in Europe than in the US or Canada. Analyzing the situation in the Nordic countries, Blume and Verner (2007) observe that immigrants in Sweden and Denmark are two to three times more likely to be below the poverty line than natives, and that this immigrant-native gap increased from the mid-1980s to the late 1990s. Authors confirm that immigrants received over 18% of all social benefits in Denmark in 1999, while they constituted less than 3% of the population. In addition, other studies show that social benefits served as a source of income for 40% of the immigrant population in Denmark, and that this share is five times higher than the share of natives receiving such benefits.

Hansen and Lofstrom (2003) analyze possible reasons for immigrants' greater reliance on welfare, attributing the increase in social security usage by immigrants after the 1980s to increased numbers of immigrants, changes in the composition of the immigrant population, and higher unemployment rates in general. Even though immigrants appear to assimilate out of welfare in both Denmark and Sweden (Hansen and Lofstrom, 2003; Blume and Verner, 2007), these differences are persistent: after 20 years of residence, migrants are 5 to 8 per cent more likely than natives to receive social benefits; this is comparable with US and Canadian rates (see e.g. Borjas and Hilton, 1996; Baker and Benjamin, 1995).

Comparative analysis across European countries shows that the average migrant makes similar usage of benefits compared to the average native in many countries, and that Denmark is in fact among only a few countries in which immigrants use social benefits to a larger extent than the native population (Zimmermann et al., 2012). Hansen and Lofstrom (2003) conclude that this difference in welfare usage is not attributable to immigrant characteristics but rather to policy and institutional setup in the respective host country.

On the other hand, as study by Barrett and Maitre (2013) shows that immigrants in the European Union are not more likely to be in welfare receipt than natives. Even for unemployment benefits, which are more frequently taken among immigrants than natives, controlling for individual characteristics and unemployment propensity shows that immigrants are less and not more likely to use welfare than comparable natives.

Another channel through which welfare regimes and migration interact relates to the impact of welfare generosity on migration. The seminal study by Borjas (2001) shows a small statistically significant effect of welfare on interstate migration in the US. De Jong et al. (2005) study the effect of welfare reform on interstate migration by poor US families. The policy change in question led to significant heterogeneity in welfare eligibility and behavior-related rules across the US states. The authors investigate whether this change in the stringency of welfare rules, both in terms of the levels of benefits and in terms of eligibility criteria, led to out-migration among poor families to more generous states. Controlling for the mediating and moderating roles of the states' economic development and family structure, they find that stringency in welfare-eligibility and behavior-related rules did stimulate interstate out-migration among poor families, but that the effect of more restrictive or more lenient welfare policy was conditioned on a state's economic characteristics, and having more lenient rules alone was not sufficient to attract in-migration. While stricter access to welfare pushed poor families from a state irrespective of that state's economic health, states with high unemployment and stringent welfare policies attracted poor families to a lesser extent than states with low unemployment and stringent welfare policies.

On the other hand, recent evidence shows that the effect of welfare generosity on migration is negligible (DeGiorgi and Pelizzari, 2009; Pedersen et al. (2008). A recent study by Giulietti et al (2013) shows that the effect is essentially zero for intra-EU migration, and vanishes for immigrants from outside of the EU after endogeneity of welfare spending is taken into account. Giulietti and Wahba (2013) conclude that the literature does not justify the notion of welfare magnet of migration.

3.3. Industrial relations

Strong trade unions have the potential to influence migration outcomes, either directly by their action targeting the immigrant population, or indirectly through institutional arrangements. These include: bargaining for extended coverage of collective agreements, monitoring compliance with relevant legal regulation, negotiating particular collective agreement provisions for migrant workers, or protecting migrants' interests and raising their awareness of entitlements related to work and welfare system provisions in the receiving countries.

There is a positive relationship between higher collective agreement coverage rates and immigrants' labor market integration. However, more broadly encompassing bargaining systems preclude mass immigration.

Fragmented bargaining systems are associated with higher migration rates and more precarious work, but also more flexible incorporation and adjustment to shocks, both for migrants and for the native labor force.

A dualized bargaining system, with clear institutional separation between insiders and outsiders, seems to be the least effective for both migrants and trade unions, and is to a large extent coupled with informality of outsiders.

Corporatism (tripartite wage coordination), social dialogue (the involvement of social partners in policy making), collective bargaining practices between employers and trade unions, collective agreement coverage rates, and trade union recruitment strategies, are all factors that can potentially affect demand for immigration and the immigrants' integration in the labor market. Particular industrial relations arrangements across various EU member states have produced different contributions to growth and social protection (e.g. in the forms of institutionalized social dialogue, coverage of employees through collective agreement provisions and the extension of these provisions to broader groups of employees). These differences, in interaction with other variables (e.g. the state of the economy and labor market, political cycles and national migration policy, public opinion, employers' traditions and attitudes towards migrant workers, etc.) have a number of implications for the costs and benefits of migration, and for migration levels.

The operationalization of industrial relations systems rests on four institutional pillars that describe industrial relations arrangements in most Western European democratic and capitalist states since the post-war period (EC, 2008; Streeck, 1992; Traxler, 2002; Visser, 2006). From the perspective of migration, the most important pillars of industrial relations are *associational power* through social partners and established *bargaining systems*. Kahancová and Szabo (2012) conceptually elaborate these pillars' relationship to migration. Strong trade unions have the potential to influence migration outcomes either directly, through action targeting the migrant population, or indirectly through institutional arrangements, e.g. bargaining for an extended coverage of collective agreements, monitoring compliance with relevant legal regulation, negotiating particular collective agreement provisions for migrant workers, or protecting migrants' interests and raising their awareness of entitlements related to work and welfare system provisions in the receiving countries. Associational power and bargaining systems may also work in interaction; for example, certain inclusive trade unions strategies, such as actively organizing migrants, may modify the direct effect of the bargaining system on migration flows, immigrants' composition or skills, or may complement the effect of the bargaining system on migration. Therefore, even in a country without a high level of bargaining coordination, or without an institutionalized practice of extending collective agreements to non-organized employers, migrant integration may differ according to trade unions' strategies vis-à-vis migrant workers.

Kahancová and Szabo (2012) further elaborate that, in general, coordinated market economies are associated with lower levels of immigration than the liberal market economy of the UK and the Mediterranean-statist model of Spain. Migration outcomes for the immigrants themselves and for the host societies differ accordingly in these systems. For example, although it is hard for a migrant to find an entry point onto the Scandinavian labor markets, once they have found one, the migrant is more likely to achieve equal wages and upward mobility than in the countries with different economic models (although more evidence is needed to substantiate this claim). Likewise, immigration does not endanger the solidaristic welfare state. In Germany's dualized bargaining system, the extension of the fringes of the economy enabled employment opportunities to be provided to migrants who were previously completely excluded from the labor market, but this resulted in limited upward mobility and a redistributive struggle between insider (nationals) and outsider (non-nationals) over welfare services. The fragmented bargaining system of liberal market economies such as the UK is associated with high levels of immigration. While such systems do not demonstrate clear separation between insiders and outsiders as in the case of Germany, there is some evidence of downward pressure on wages in the low-skilled service sector. Nevertheless, the Great Recession did not impinge disproportionately on migrant workers. In Spain, migration was a similarly intense process during the 2000s, framed by informality and periodical state intervention, yet the effects of the Great Recession on immigrant labor were much harsher, and these effects were not counterbalanced by any kind of collective bargaining response.

Meardi et al. (2012) study the relationship between industrial relations and migration. The fragmented bargaining systems in the UK and a lack of collective agreements in most enterprises allows employers to

take advantage of the immigrant labor force and use it as a buffer against ups and downs in demand. The German economy, while formally classified as a coordinated market economy, has developed strong signs of a serious insider-outsider cleavage - or duality - in the labor market. While insiders are still covered by collective agreements and enjoy a great degree of employment security, outsiders are not covered and have to put up with much more flexible and individualized contracts, greater wage dispersion, and unstable working conditions. Immigrants in Germany are disproportionately concentrated in atypical forms of employment, including short-term contracts, mini-jobs, and temporary agency work. The gap between Germans and foreigners in atypical forms of employment tripled between 1997 and 2007; foreigners are taking over an increasing share of the economy's increasing job insecurity. The changes in the bargaining system were not deliberately aimed at segregating migrants, but in effect did impinge mostly on non-nationals. The collective bargaining system in Spain unites certain elements of the dualized and the fragmented models, but its distinctive features are informality and state intervention. From the migrants' perspective, the benefits of this system are apparent in the relative ease with which immigrants could obtain construction, agriculture and personal service jobs in the booming Spanish economy during the early 2000s. As in the United Kingdom, immigrants provided the buffer to meet increased demand in good times, and there was no collective bargaining in the affected sectors that could have prevented a massive inflow of foreign-born labor. Nevertheless, social and individual costs stemmed from the informality of this arrangement: forgone tax revenues on the host society's side and no access to benefits for the new inhabitants.

Kahanec, Zimmermann, Kureková and Biavaschi (2013) argue that more broadly encompassing bargaining may preclude mass labor force immigration, but that on the other hand it facilitates a more balanced migration outcome for both immigrants and the society as a whole. A dualized bargaining system, with clear institutional separation between insiders and outsiders, seems to be the least effective both for immigrants and for trade unions, especially if coupled with informal migrant status. Fragmented bargaining systems allow mass immigration, but are more susceptible to precarious labor; given that the labor market is flexible, negative shocks tend to affect immigrants and nationals more equally under this system.

Social partners - employers' associations and unions – might have opposing views about the openness of migration policy. The IZA 2012 Expert Opinion Survey, presented in Kahanec, Zimmermann, Kureková and Biavaschi (2013), questioned experts about stakeholder attitudes to migration policy change with respect to Eastern Partnership (EaP) countries. About two thirds of the experts identified employers and employers' associations as the group both most likely to support and most likely to benefit from a more liberalized migration policy towards EaP countries. Workers, unions and employees' associations were generally considered opponents of a more liberalized policy. Similarly, Kahancová and Szabo (2012) find a correlation between collective bargaining coverage rates and migrant labor market integration, as measured by the MIPEX index.

3.4. Labour market policies and regulation

The Nordic countries are characterized by relatively homogenous and highly regulated labor markets, although some of these countries efficiently combine elements of flexibility and security. Labor markets in conservative-continental and southern-statist regimes are dualized, and especially in the latter group demonstrate strong features of irregularity and illegal employment. Liberal regimes have lightly regulated labor markets.

Empirical evidence is rather inconclusive on the implications of labor market regulation practices on migrant labor market outcomes.

Labor market regulation is a factor closely linked to the previously discussed institutional areas. Comparative capitalism frameworks have established that European countries vary according to their level and coverage of employment regulation and labor market legislation stipulating how labor relations are organized and regulated, with implications for labor market flexibility, wage inequality and, to some extent, social inequalities. In general, the Nordic countries are characterized by relatively homogenous and highly regulated labor markets, although some of these countries efficiently combine elements of flexibility and security (flexicurity in Denmark and the Netherlands). Labor markets in conservative-continental and southern-statist regimes are dualized, and in the latter exhibit high levels of irregularity and illegal employment. Finally, liberal regimes have lightly regulated labor markets (Devitt 2011).

Bisin et al (2011) analyze the link between immigration and OECD employment protection indicators: individual dismissal of workers (notification and consultation requirements, notice periods and severance pay, difficulty of dismissal), additional costs for collective dismissal, and temporary contract regulation. The authors argue that a flexible labor market should be more favorable to immigrants, as the chances of finding a job are greater. Taking into account that it is often difficult for immigrants to find their first job due to adjustment costs, discrimination or prejudice, the authors conclude that countries such as the UK and Ireland with flexible labor markets, lower levels of regulation, lower minimum wages and lower trade union densities, are more favorable for immigrants and enable them to find their first employment. In line with this argument, Sweden has one of the lowest immigrant employment rates in Europe, and has very high trade union density and a relatively rigid labor market (Åslund et al., 2010).

If immigrants tend to be overrepresented among the less skilled, or they down-skill into lower-skilled occupations on arrival in their host country, a higher minimum wage may drive the costs of their labor above the productivity levels they attain. As a result, the odds of finding and keeping a job may be lower for immigrants in countries with higher minimum wages. Bisin et al. (2011) show that countries with minimum wages that are high relative to the median wage appear to be less favorable to immigrants. On the other hand, the authors find evidence that a stricter regulation of the labor market eliminates employment penalty for migrants with strong identity, i.e. those most affected by discrimination. The authors propose that countries with more flexible labor markets provide better labor market access, but do not protect migrants with a strong ethnic identity.

Analyzing the European experience of migration, Dustmann and Frattini (2012) find that immigrants who have recently arrived in countries with stricter employment protection regulations have a more distinct occupational distribution compared to the natives, with non-EU immigrants being especially affected. The authors conclude that in countries with stricter employment protection legislation, access to certain occupational sectors is more difficult. At the same time, however, the immigrant-native employment gap does not seem to correlate with the level of employment protection regulations.

According to Anderson and Ruhs (2008), the institutional structure and regulatory framework of the British labor market is characterized by deregulation, flexibilization and trade union membership playing a lesser role. Together with economic and public policies (long-term sector restructuring, specific public training programs or lack thereof, the incentives of the benefit system, and the need for effective public service provision), this may have effects on employers' decisions concerning staff shortages. For example, employers in the construction sector reduced their investments in training and labor saving technology due to immigration, which influenced sector restructuring. Policy changes also had similar impacts on wages and placement in the health and care sector.

Ramos et al. (2013) analyze immigrant-native wage gaps by focusing on the effect of favorable and unfavorable policies on newly arrived labor immigrants 'labor market integration, measured by the MIPEX migration policy index. The authors conclude that immigrants have better access to labor the labor market and targeted support in countries with well-established favorable immigration policy. Countries with

restricted access policies do not usually make use of immigrants' specific skills.

The link between migration outcomes (levels of immigration, immigrants' skill composition, immigrants' integration into the host country labor market), institutional design, non-migration policies and supply-demand conditions is summarized in Table 1. This systematic overview is based on an earlier framework suggested by Kahancová and Szabo (2012) and further extended on the basis of the comprehensive review provided in this study. The summary table should be viewed as an attempt to describe the general features of *ideal* country regime types; it therefore inevitably hides variation within these regimes and any country-specific differences that might affect certain institutional areas. In the empirical analysis which follows, we capture systematic context-specific effects by including categorical variables grouping countries and mapping country-level contextual differences, as well as by testing the impact of country-specific continuous variables.

Table 1 - Institutional design and migration trends and outcomes

Country examples approximating ideal type	Nordic countries	Germany, Austria, Denmark, Netherlands, Belgium	UK, Ireland	Spain, France, Italy, Greece, Portugal	Central Europe
<i>Institutional regimes features</i>					
(VoC) regime type	<i>coordinated market economies (CMEs)</i>		<i>liberal market economies (LMEs)</i>	<i>Southern-statist economies (MMEs)</i>	<i>Emerging market economies (EMEs)</i>
Welfare regime type	<i>Nordic or social democratic</i>	<i>Continental or Christian democratic</i>	<i>Anglophone or liberal/residual</i>	<i>Continental or Christian democratic</i>	<i>Post-communist or Patchwork welfare regime</i>
Collective bargaining system	<i>encompassing</i>	<i>dualized</i>	<i>fragmented</i>	<i>informal-statist</i>	<i>fragmented</i>
Education system and skill regimes	<i>School-based education, mix of general and skill specific</i>	<i>Dual education system</i> <i>Specific skills regime</i> <i>Occupational labor markets are strong</i>	<i>Universalistic school based education</i> <i>General skills regime</i>	<i>School-based education</i> <i>General skills regime</i>	<i>A mix of dual and school-based education systems</i> <i>Mixed skills regimes</i>
Labor market regulation	<i>Highly regulated; homogenous labor markets</i>	<i>Regulated; dualized labor markets</i>	<i>Weakly regulated</i>	<i>Regulated; dualized with strong features of informality</i>	<i>Regulated; dualized</i>
<i>Migration outcomes: levels, skill composition, labor market inclusion</i>					
Overall migration levels	<i>low levels of economic immigration in the 2000s</i>		<i>high levels of economic immigration in the 2000s</i>		<i>Low but rising levels of immigration</i> <i>High rates of emigration in some countries</i>
Typical sector/ employment type for migrants	<i>equally distributed across sectors</i>	<i>atypical employment in services</i>	<i>services</i>	<i>construction, agriculture, personal services</i>	<i>high-skilled mobility to FDI-led sectors, low-skilled employment in services and agriculture</i>
Integration efforts	<i>High</i>	<i>Improving</i>	<i>High</i>	<i>Improving</i>	<i>Low</i>

Benefits for migrants	<i>possibilities for upward mobility, more equal wages, easier welfare inclusion</i>	<i>entry to the labor market for formerly excluded (youth, female) groups of migrants, limited welfare access</i>	<i>easy entry to the labor market in good times, low levels of labor market segregation</i>	<i>easy entry to the labor market in good times</i>	<i>strict conditions on legal entry, exclusion from welfare</i>
Benefits for the economy as a whole	<i>maintenance of solidarity and the fiscal base of the welfare state</i>	<i>increasing employment (without disrupting the productivity coalition of core sectors)</i>	<i>flexibility</i>	<i>flexibility</i>	<i>filled labor and skill shortages</i>
Costs for migrants	<i>difficult for immigrants to enter</i>	<i>segregation, no upward mobility</i>	<i>social dislocation in hard times</i>	<i>insecurity in good times, dislocation in hard times</i>	<i>dislocation in hard times</i>
Costs for the economy as a whole	<i>possible atrophy of the system through loopholes (posted workers)</i>	<i>redistributive struggles between insiders and outsiders, wage dumping in certain sectors</i>	<i>pressure to lower wages in the low-skilled sector</i>	<i>loss of tax revenue in good times, social upheaval in hard times</i>	<i>possible costs in future due to weak integration policies</i>

Source: Authors, partly based on Kahancová and Szabo (2012)

IN-DEPTH STUDY

4. QUANTITATIVE DEEPENING: MEASURING IMMIGRANT-NATIVE LABOR MARKET GAPS AND THEIR INSTITUTIONAL AND DEMAND AND SUPPLY STRUCTURAL FACTORS

The scientific evidence summarized above shows that native-immigrant labor market gaps vary across outcome variables, immigrant groups, receiving countries, and time. They often decline with time spent in the host country; however, they seldom disappear fully and may even be transferred across generations of immigrants. In the literature, some of the key determinants of native-immigrant labor market gaps include years since migration (including both the effect of adjustment in the host country and the cohort effect), human capital gaps and lower returns to human capital, often compounded by discriminatory treatment and social norms.¹

In this empirical section, we aim to further contribute to the understanding of the determinants of native-immigrant gaps in receiving labor markets by studying macro-level contextual factors. Our objective is to systematically measure the statistical relationships between immigrant-native labor market gaps and various institutional and demand and supply structural factors across the EU member states.

In this analysis we distinguish two types of native-immigrant gaps. First, some gaps arise due to observable differences in the compositional characteristics of immigrant and native populations. The immigrant population may have a different composition in terms of gender or age, or may be more or less educated than the natives. Second, immigrants and natives with the same characteristics may be treated differently or behave differently in the labor market. This may be the result of discrimination, of differing preferences, or of other unobserved factors. As the factors behind immigrant-native labor market gaps are observed in the first case but not the second, we call these gaps explained and unexplained, respectively.

Guzi and Kahanec (2015, forthcoming) study explained and unexplained labor market gaps between migrants from the new EU member states and natives, in the context of the EU's eastern enlargements in 2004 and 2007. Using the EU Labor Force Survey and decomposition techniques, they find significant gaps in labor market participation, unemployment, self-employment, over-education, low-skilled employment, and temporary contracts. Their study confirms that significant parts of the observed gaps remain unexplained even after controlling for differences in the composition of the immigrant and native populations.

From the perspective of public policy, it is important to distinguish these two sources of immigrant-native labor market gaps, as different policy tools may be necessary to address each of them. For example, policies enabling transferability of skills, promoting equal treatment, or fighting discrimination may serve as core instruments to reduce the unexplained labor market gaps between natives and immigrants.

In this study we shed light on how various institutional and supply and demand factors affect the unexplained component of immigrant-native labor market gaps across the EU.² In other words, we measure the effects of various institutional and supply and demand factors on the differences in treatment and behavior of comparable immigrants and natives. We proceed in two steps. In the first stage, we adopt the methodology developed by Guzi and Kahanec (2015, forthcoming) and Guzi et al. (2015, forthcoming) and use the EU LFS dataset to measure unexplained immigrant-native labor market gaps across the EU.

¹ See e.g. Kahanec and Zaiceva, 2009; Kahanec and Zimmermann, 2012; Dustmann and Frattini, 2012.

² Guzi et al. (2015) look at both the unexplained and explained components.

Specifically, we study unexplained immigrant-native gaps for four labor market status variables: labor force participation (measuring access to the labor market), unemployment (measuring chances of getting a job), and two measures of job quality: incidence of low-skilled jobs, and type of contract (temporary or permanent). The labor market participation rate is defined according to the ILO's definition as the share of the working age population employed or without a job but seeking employment. Low-skilled jobs relate to positions requiring simple and routine tasks, in the ISCO-9 group.

Following Oaxaca (1973) and Blinder (1973), and Yun's (2004) extension to nonlinear models, we decompose the observed gaps in these labor market status variables into the part that is explained by differences in the observed characteristics of immigrant and non-immigrant populations, and the part that remains unexplained, reflecting differences in returns to characteristics and other unobserved variables, such as social and ethnic capital or discrimination. Decompositions are performed separately for each country and year so that the estimated explained and unexplained immigrant-native labor market gaps create a panel dataset.

In the second stage, following Guzi et al. (2015, forthcoming), we aim to explain the variation in unexplained immigrant-native labor market gaps obtained in the first stage using variables measuring host countries' institutions. At the macro level, we adopt a broad categorization of institutional contexts as provided by the literature on varieties of capitalism, based on the seminal work by Hall and Soskice (2001) as extended by Hancké, Rhodes and Thatcher (2007). Specifically, we distinguish coordinated market economies (CMEs), liberal market economics (LMEs), mixed market economies (MMEs), and emerging market economies (EMEs).³

In the next step, to test the validity of the estimated effects of VoC type on our dependent variables we study whether they are mirrored in the effects of the fundamental variables underpinning VoC theory. Among those we consider measures of the influence of trade unions (union density and collective agreement coverage), employment protection indicators (focusing on permanent and temporary contracts), and supply and demand factors such as the openness of the host economies to international trade, the country's GDP per capita, and its unemployment rate.

In Table 1 we describe the sample and provide immigrant-native differences in individual characteristics across VoC country groups. A positive number indicates overrepresentation (and a negative number underrepresentation) of immigrants with the given characteristic, compared to the native population.

It turns out that across VoC types, women and (with the exception of EME) young people are slightly overrepresented among immigrants compared to the native populations. Whereas in MME countries the immigrant and native populations do not differ much in terms of their educational attainment, in CME countries immigrants are less educated, and in LME countries more educated, than the natives. In EME countries both high- and low- educated immigrants are overrepresented, whereas immigrants with middling levels of education are underrepresented vis-à-vis the natives. Immigrants are overrepresented in urban areas across all VoC types.

³ Our sample is thus partitioned as follows: CME includes Austria, Belgium, Germany, Denmark, Finland, Luxembourg, the Netherlands, and Sweden; LME includes Ireland and the United Kingdom; MME includes France, Greece, Italy, Portugal and Spain; and EME includes the Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia. We only include EU member states with sufficient numbers of observations on immigrants in the data.

Table 1 - Descriptive statistics: immigrant-native differences in individual characteristics by VoC category

	CME	EME	LME	MME
Female	0.03	0.02	0.02	0.02
Age	-0.54	3.55	-2.29	-1.98
ISCED1 primary	0.08	0.00	-0.02	0.01
ISCED2 lower secondary	0.04	0.02	-0.06	-0.02
ISCED3 upper secondary	-0.10	-0.06	-0.01	0.02
ISCED4 post-secondary	-0.01	-0.01	0.00	0.00
ISCED5 university	-0.02	0.04	0.08	-0.01
ISCED6 postdoc	0.00	0.00	0.01	0.00
Urbanization: Densely-populated	0.18	0.09	0.15	0.13
Urbanization: Intermediate area	-0.07	0.05	-0.05	-0.04
Urbanization: Thinly-populated	-0.11	-0.15	-0.10	-0.09

Note: Authors' calculation based on EU-LFS, 2004-2012. Differences in shares and statistics are weighted using personal weights. CME (Austria, Belgium, Germany, Denmark, Finland, Luxembourg, the Netherlands, and Sweden), LME (Ireland and the United Kingdom), MME (France, Greece, Italy, Portugal, and Spain) and EME (Czech Republic, Estonia, Hungary, Poland, Slovakia, and Slovenia).

Table 2 shows that VoC countries differ substantially in terms of their underlying institutional characteristics. Union density ranges from as low as 19.8 percent in EME countries to 46.2 percent in CME countries. Collective bargaining coverage is the lowest in LME countries at 37.3 percent, and reaches 83.4 percent in CME countries. For both regular and temporary contracts, the employment protection index (EPL) is the lowest in LME countries. On the other hand, MME countries report the highest levels of employment protection. MME countries are also the least open in terms of international trade, whereas CME countries, closely followed by EME countries, are the top exporters. Per capita GDP is lowest in EME countries and highest in CME countries, whereas the unemployment rate is lowest in CME countries and highest in MME countries. These characteristics are broadly in line with the VoC conceptual framework's expectations as to the institutional underpinning and economic performance of different institutional regimes.

Table 2 - Institutional differences by VoC type

	CME	EME	LME	MME
Union density	46.22	19.79	29.77	20.20
Collective bargaining	83.35	55.24	37.32	81.08
EPL - regular contract	2.39	2.59	1.25	2.89
EPL - temporary contract	1.68	1.36	0.49	2.72
Export as % of GDP	71.22	68.77	57.99	27.23
Per-capita GDP (log)	10.71	10.13	10.58	10.36
Unemployment rate	6.27	7.33	7.75	10.73

Notes: See Table 1. Union density and collective bargaining in percent; ICTWSS database. EPL - regular contract and EPL - temporary contract in points; OECD database. GDP per capita (PPP constant 2011 USD) and unemployment rates from World Bank Databank. Export as % of GDP from Eurostat.

Table 3 presents immigrant-native gaps in labor market outcomes by VoC type. The figures are obtained from the Oaxaca (1973) and Blinder (1973) decomposition and show that immigrants generally exhibit lower participation rates but higher unemployment, low-skilled employment, and temporary employment rates. MME countries are the exception, with immigrants in these countries having higher participation but also the highest share in low-skilled employment, too. The estimated unexplained gaps in Table 3 show that large fractions of these gaps, sometimes even exceeding the raw gaps, are unexplained. The figures also show significant variation across VoC types, and the pattern is different across the labor market outcomes.

Table 3 - Labor market performance of natives and immigrants by VoC type

	CME	EME	LME	MME
<i>Natives</i>				
Participation rate	0.75	0.65	0.74	0.67
Unemployment rate	0.06	0.09	0.07	0.10
Low-skill job	0.08	0.08	0.09	0.10
Temporary contract	0.12	0.14	0.06	0.17
<i>Immigrants</i>				
Participation rate	0.71	0.63	0.72	0.73
Unemployment rate	0.12	0.12	0.10	0.14
Low-skill job	0.16	0.14	0.13	0.25
Temporary contract	0.15	0.17	0.09	0.26
<i>Differences</i>				
Participation rate	-0.04	-0.02	-0.01	0.06
Unemployment rate	0.06	0.03	0.02	0.05
Low-skill job	0.09	0.06	0.04	0.15
Temporary contract	0.04	0.04	0.03	0.09
<i>Unexplained gap</i>				
Participation rate	-0.06	-0.02	-0.06	0.02
Unemployment rate	0.05	0.04	0.03	0.03
Low-skill job	0.07	0.04	0.06	0.14
Temporary contract	0.04	0.07	0.03	0.08

Source: Authors' calculation based on EU-LFS, 2004-2012.

In the final step, we follow Guzi et al. (2015) and elucidate the extent to which institutional and supply and demand factors explain the observed unexplained immigrant-native gaps in labor force participation, unemployment, low-skilled employment, and temporary employment. We use the data from stage one about unexplained immigrant-native gaps, VoC country typology as discussed above, and institutional variables (union density, collective bargaining coverage, and employment protection of regular and temporary contracts) from the ICTWSS database.⁴

We begin by focusing on simple models, including only the VoC dummies, GDP per capita, unemployment rate and year dummies, in columns (1), (3), (5) and (7) of Table 4. We find that unexplained immigrant-native gaps vary significantly across VoC types for all four studied variables (participation, low-skilled jobs, unemployment, and temporary contracts). The unexplained participation gap is slightly larger in LME countries than in CMEs, and is significantly larger in MME and EME countries. MME countries are also characterized by larger immigrant-native gaps in the prevalence of low-skilled employment; there is no statistically significant difference in the immigrant-native low-skilled employment gap between LME and CME countries, while in EME countries immigrants actually enjoy a small but statistically significant advantage over natives in terms of the unexplained gap in low-skilled employment. Immigrant-native gaps in temporary employment favor immigrants in LME and EME countries more than in CME countries, although in the latter case this is only marginally significant. Finally, immigrants in CME countries are disadvantaged vis-à-vis the native population in terms of unexplained unemployment gaps and by 3.3 to 4.9 percentage points more so than in all other VoC types. These results are robust with respect to the condition of the host-country's economy, as measured by GDP per capita and unemployment rate.

These simple models explain relatively large fractions of the variation in unexplained immigrant-native gaps, with R-squared ranging from 0.32 for temporary employment up to 0.62 for labor force participation. To test whether the results above are indeed due to variables underpinning the VoC typology or other confounding factors, correlated with the VoC typology, we examine their explanatory power in separate models. In columns (2), (4), (6) and (8) of Table 4 we show that the variables underpinning the VoC typology matter for labor market outcomes, and that most of the results for VoC typology are robust with respect to the inclusion of the separate variables. Specifically, independent of countries' VoC type, a higher union density increases the immigrant-native gap in unemployment, whereas collective bargaining coverage does not seem to influence unexplained immigrant-native gaps much, with the possible exception of reducing the gap in temporary employment. Protection of regular contracts decreases the gap for low-skilled employment, but increases the gap in temporary employment. The strongest effects are found for employment protection legislation, and its influence regarding temporary employment: while it reduces the unexplained immigrant native gap for low-skilled employment, it disadvantages immigrants in all other aspects – participation, unemployment and temporary employment. More export-oriented countries favor immigrants in terms of participation and unemployment, although the latter effect is only marginally significant.

As regards the effects of VoC types on immigrant-native unexplained gaps in labor market status, LME countries favor immigrants more than CME countries in terms of the lower prevalence of low-skilled employment. MME and EME countries favor immigrants in terms of participation, unemployment, and temporary employment. However, for EME countries we find that this may come at a cost, as they disadvantage immigrants in terms of low-skilled employment.

⁴ Available at: <http://www.uva-aias.net/208>.

Table 4 - Determinants of unexplained immigrant-native labor market gaps

	Participation gap			Low-skill occupation gap			
	(1)		(2)	(3)		(4)	
Union density			0.0001			0	
			(0.000)			(0.000)	
Collective bargaining			-0.0002			-0.0001	
			(0.000)			(0.000)	
EPL - regular contract			-0.0012			-0.0158	**
			(0.005)			(0.007)	
EPL - temporary contract			-0.0167	***		-0.017	**
			(0.005)			(0.008)	
Export as % of GDP			0.0005	***		0.0002	
			(0.000)			(0.000)	
LME	0.0101	**	-0.0116		-0.0085	-0.0476	***
	(0.005)		(0.011)		(0.006)	(0.016)	
MME	0.1052	***	0.1427	***	0.0603	0.1012	***
	(0.009)		(0.012)		(0.012)	(0.020)	
EME	0.1005	***	0.0865	***	-0.0213	-0.0183	
	(0.008)		(0.013)		(0.009)	(0.016)	
Per-capita GDP	0.1083	***	0.0918	***	0.0063	0.0177	
	(0.010)		(0.017)		(0.011)	(0.025)	
Unemployment rate	0.0028	***	0.0022	***	0.0021	0.0014	
	(0.001)		(0.001)		(0.001)	(0.001)	
N	187		187		174	174	
r ²	0.62		0.66		0.44	0.47	

Source: Authors' calculation based on EU-LFS, 2004-2012; ICTWSS database.

Notes: Dependent variable: Unexplained gap. Varieties of capitalism: CME - coordinated market economy (taken as reference), LME - liberal market economy, MME - mixed market economy and EME – Eastern European market economy. OLS with robust (Eicker-Huber-White) heteroskedastic-consistent standard errors with year dummies. ***, **, and * denote 1%, 5%, and 10% confidence levels.

Table 4 (continued) - Determinants of unexplained immigrant-native labor market gaps

	Temporary contract gap			Unemployment gap			
	(5)		(6)		(7)	(8)	
Union density			0.0003			0.0003	**
			(0.000)			(0.000)	
Collective bargaining			-0.0004	*		0.0001	
			(0.000)			(0.000)	
EPL - regular contract			0.0286	***		0.0067	
			(0.008)			(0.005)	
EPL - temporary contract			0.033	***		0.0194	***
			(0.009)			(0.006)	
Export as % of GDP			-0.0001			-0.0003	*
			(0.000)			(0.000)	
LME	-0.0197	***	0.0294	*	-0.0335	***	-0.001
	(0.007)		(0.017)		(0.005)		(0.011)
MME	0.0065		-0.062	***	-0.0486	***	-0.0813
	(0.011)		(0.023)		(0.007)		(0.018)
EME	-0.02	*	-0.0601	***	-0.0327	***	-0.0245
	(0.011)		(0.017)		(0.007)		(0.011)
Per-capita GDP	-0.076	***	-0.1366	***	-0.015	**	-0.0235
	(0.013)		(0.031)		(0.007)		(0.015)
Unemployment rate	0.0022	*	0.002		0.0045	***	0.0047
	(0.001)		(0.001)		(0.001)		(0.001)
N	172		172		177		177
r2	0.32		0.42		0.36		0.45

Source: Authors' calculation based on EU-LFS, 2004-2012.

Notes: Dependent variable: Unexplained gap. Varieties of capitalism: CME - coordinated market economy is taken as reference, LME - liberal market economy, MME - mixed market economy and EME – Eastern European market economy. OLS with robust (Eicker-Huber-White) heteroskedastic-consistent standard errors with year dummies. ***, **, and * denote 1%, 5%, and 10% confidence levels.

5 QUANTITATIVE DEEPENING: MEASURING IMMIGRANT-NATIVE LABOR MARKET GAPS AND THEIR INSTITUTIONAL AND DEMAND AND SUPPLY STRUCTURAL FACTORS

Comparative capitalism literature has identified systematic differences between advanced economies' socio-economic regimes, in the institutional areas of industrial relations, education and training, employment, and welfare systems. The categorization of countries into different types of economies characterized by institutional complementarities proxies on institutions and supply and demand conditions potentially relevant for immigrant integration. In this study we test the role of these economy types in accounting for unexplained immigrant-native gaps in the host countries' labor markets.

The literature proposes that differences in systems of political economy - the nexus of productions strategies of corporations, the sectoral composition of the economy, labor market regulation and institutional design – also shape migration policy. The relative size and importance of component sectors of

the economy (primary-secondary-tertiary) may also affect desired profiles of economic migrants.

Coordinated market economies are in general associated with lower levels of immigration than liberal market economies and Mediterranean-statist economies. Stakeholders in different systems of political economy seek to influence governments to adopt labor migration policies which attract migrants who they deem complementary to national production strategies. Since high-skilled migrants are expected to bring higher complementarities and greater benefits, most countries - typically irrespective of institutional configuration and economic structure - generally grant more extensive rights to high-skilled immigrants than to low-skilled immigrants.

Immigrants' supply of human capital is a function of their endowment upon arrival and the human capital they have acquired in their receiving country. As part of a broader institutional framework, education and skill formation regimes in host countries can affect migration by shaping preferences and needs for certain types of skills (general or specific, high or low), as well as by providing additional possibilities for education and training, and for skill recognition.

Differences in product market strategies and sectorial composition induce coordinated market economies to be most interested in migrants with specific skills and liberal market economies to prefer migrants with general and transferable skills, who are better able to respond to flexible corporate strategies. Employers in mixed and emerging market economies appear to adopt more diverse preferences and strategies.

The skill specificity of a given production regime is sustained by its education and training systems: general skills are easily transferable across firms and industries, and are predominantly produced in public education systems. Industry-specific skills are produced in systems that combine on-the-job training with education in a public institution ('dual systems'). Firm-specific skills are mainly provided within companies and are the least transferable. Social partners, especially employers, are most intensively involved in dual skill formation systems; this affects their knowledge and trust of the system and importance given to formal qualifications and certification processes.

From the perspective of migration, migrants' access to and integration in the labor market tends to be the least difficult in general skill regimes, where less emphasis is given to formal education and skill certification, while access to adequate employment is the most complicated in dual skill formation regimes, where education and skill licensing are highly formalized.

Access to education and training policies and other types of focused integration measures for migrants vary across countries; the degree of accessibility is related to welfare regime type and overall social spending levels. In general, labor market policies and other integration measures are more extensively offered to migrants in the Nordic countries and in liberal economies than in other regime types. The treatment of migrants in active labor market measures has been shown to have significant positive impact on their labor market inclusion prospects (which is not always the case for the general population). Knowledge of the national language is the key factor for success in the labor market, as well as for meaningful participation in other types of training in the host country.

Poor recognition of qualifications is one of the key institutional factors explaining immigrants' downskilling. In several countries, recognition of foreign qualifications has been shown to have a statistically significant positive influence on migrant employability and career development.

Scholars have argued that there are institutional complementarities between minimalist welfare arrangements, liberal migrant admission policies, and underdeveloped integration policies.

Although historically migrants' access to welfare has improved, advanced countries continue to limit their social rights. Governments are more likely to grant social rights to highly skilled migrants than to low-skilled

migrants. In spite of these barriers, a large body of literature has analyzed what extent welfare regimes in host countries affect migrants' choice of destination, and their labor market integration patterns. Evidence on immigrants' welfare usage versus that of natives, and on the fiscal effects of immigration, is variable across countries and over time, but the notions of immigrants' overuse of welfare and welfare magnet of migration are not supported by the data. Host countries' institutional structures and the character of their welfare regimes in particular, are important factors in explaining the net fiscal impact of migration.

Strong trade unions have the potential to influence migration outcomes, either directly by targeting the migrant population, or indirectly through institutional arrangements. These include: bargaining for an extended coverage of collective agreements, monitoring compliance with relevant legal regulation, negotiating particular collective agreement provisions for migrant workers, or protecting the interests of migrants and raising their awareness of entitlements related to work and welfare system provisions in the receiving countries. There is a positive relationship between higher collective agreement coverage rates and immigrants' labor market integration. However, more broadly encompassing bargaining systems preclude mass immigration.

Fragmented bargaining systems are associated with higher migration rates and more precarious work, but also more flexible incorporation and adjustment to shocks, both for immigrants and for the native workforce. A dual bargaining system, with clear institutional separation between insiders and outsiders, seems to be the least effective for both migrants and trade unions, and is to a large extent coupled with larger illegal immigration.

The Nordic countries are characterized by relatively homogenous and highly regulated labor markets, although some of these countries efficiently combine elements of flexibility and security. Labor markets in conservative-continental and southern-statist regimes are dual, and demonstrate strong features of irregularity and illegal employment, especially in the latter group. Liberal regimes have lightly regulated labor markets. Empirical evidence is rather inconclusive as concerns the implications of labor market regulation practices on migrant labor market outcomes.

Our empirical results show that unexplained immigrant-native gaps, that is those that cannot be explained by differences in characteristics, vary across VoC types, and that this is true even if we control for key economic factors such as GDP per capita and unemployment rate. Importantly, these unexplained gaps measuring unequal immigrant treatment behavior also depend on the fundamental variables underpinning the VoC typology.

Specifically, we find that higher union density increases the unemployment gap between immigrants and natives. On the other hand, collective bargaining coverage seems to have no significant effects. Employment protection of regular contracts reduces the gap in the prevalence of low-skilled employment between immigrants and natives; however, it pushes immigrants into temporary employment. Employment protection of temporary contracts has similar effects on immigrant-native gaps in low-skilled as well as temporary employment; in addition, it disadvantages immigrants vis-à-vis the natives in terms of participation and employment gaps. We also find that more open economies, i.e. those with a higher export-to-GDP ratio, provide favorable conditions for labor force participation and perhaps also employment of immigrants.

Finally, compared to coordinated market economies, in liberal market economies immigrant-native gaps in low-skilled employment are attenuated. On the other hand, mixed and emerging market economies seem to disadvantage immigrants when it comes to skilled employment, but provide better conditions than coordinated market economies as regards participation, unemployment, and temporary employment.

REFERENCES

- Andersen, R., & Van De Werfhorst, H. G. (2010). Education and occupational status in 14 countries: The role of educational institutions and labour market coordination. *The British Journal of Sociology*, 61(2), 336–355.
- Anderson, B., & Ruhs, M. (2008). A need for migrant labour? The micro-level determinants of staff shortages and implications for a skills based immigration policy. [Paper prepared for the Migration Advisory Committee (MAC)]. Compas: Oxford University.
- Artiles, A.M., & Meardi, G. (2014). Public opinion, immigration and welfare in the context of uncertainty. *Transfer: European Review of Labour and Research*, 20, 53-68.
- Åslund, O., Östh, J., & Zenou, Y. (2010). How important is access to jobs? Old question—improved answer. *Journal of Economic Geography*, 10(3), 389–422.
- Atzmüller, R. (2012). Dynamics of educational regimes and capability-oriented research. *Social Work & Society*, 10(1)
- Baker, M. & Benjamin, D. (1995). The receipt of transfer payments by immigrants to Canada. *Journal of Human Resources*, 30(4), 650-676.
- Barrett, A., & McCarthy, Y. (2007a). Immigrants in a booming economy: Analysing their earnings and welfare dependence. *Labour*, 21(4).
- Barrett, A. & McCarthy, Y. (2007b). The earnings of immigrants in Ireland: Results from the 2005 EU Survey of Income and Living Conditions. *Quarterly Economic Commentary*, Winter.
- Barrett, A., & McCarthy, Y. (2008). Immigrants and welfare programs: Exploring the interactions between immigrant characteristics, immigrant welfare dependence and welfare policy. *Oxford Journal of Economic Policy*, 24(3), 543–60.
- Barrett, A., McGuinness, S., & O'Brien, M. (2012). The immigrant earnings disadvantage across the earnings and skills distributions: The case of immigrants for the EU's new member states. *British Journal of Industrial Relations*, 50(3), 457-481.
- Barrett, A., & B. Maitre, (2013). Immigrant Welfare Receipt Across Europe. *International Journal of Manpower*, 34(1), 8 – 23.
- Bisin, A., Patacchini, E., Verdier, T., & Zenou, Y. (2011). Ethnic identity and labour market outcomes of immigrants in Europe. *Economic Policy*, 26, 57–92.
- Blinder, A. S. (1973). Wage discrimination: Reduced form and structural estimates. *Journal of Human Resources*, 8, 436-455.
- Blume, K., & Verner, M. (2007). Welfare dependency among Danish immigrants. *European Journal of Political Economy*, 23(2), 453-471.
- Bohle, D., & Greskovits, B. (2012). *Capitalist Diversity on Europe's Periphery*. Ithaca, NY: Cornell University Press.
- Bommes, M., & Geddes, A. (Eds.). (2000). *Immigration and welfare: Challenging the borders of the Welfare*

State. London, UK and New York, NY: Routledge.

Borjas, G.J., & Hilton, L.(1996). Immigration and the Welfare State: Immigrant participation in means-tested entitlement programs. *The Quarterly Journal of Economics*, 111(2), 575-604.

Brodmann, S., & Polavieja, J. G. (2010).Immigrants in Denmark: access to employment, class attainment and earnings in a high-skilled economy. *International Migration* 49(1), 58–90.

Busemeyer, M., & Thelen, K. (2013). Non-standard employment and systems of skill formation in European countries. In W. Eichhorst & P. Marx(Eds.), *Non-standard employment in a comparative perspective*. Cheltenham, UK: Edward Elgar.

Carrera, S. (2005). What does free movement mean in theory and practice in an enlarged EU? *European Law Journal* 11(6), 699-721.

Clausen, J., Heinesen, E., Hummelgaard, H., Husted, L., & Rosholm, M. (2009). The effect of integration policies on the time until regular employment of newly arrived immigrants: Evidence from Denmark. *Labour Economics*, 16(4), 409-417.

Crouch, C., Finegold, D., & Sako, M. (1999). *Are skills the answer? The political economy of skill creation in advanced industrial countries*. Oxford, UK: Oxford University Press.

de Haas, H., & Vezzoli,S. (2010). *Migration and development: Lessons from the Mexico-US and Morocco-EU experiences*. (IMI Working Paper 22).Oxford, UK: International Migration Institute (IMI), University of Oxford.

De Giorgi, G., and M. Pellizzari. (2009). Welfare Migration in Europe. *Labour Economics* 16(4), 353–363.

De Jong, G. F., Roemke Graeffe, D., & St. Pierre,T. (2005). Welfare reform and interstate migration. *Demography* 42(3), 469–96.

Devitt, C. (2010). The migrant worker factor in labour market policy reform. *European Journal of Industrial Relations*, 16(3), 259-275.

Devitt, C. (2011). Varieties of capitalism, variation in labour immigration. *Journal of Ethnic and Migration Studies*, 37(4), 579-596.

Dustmann, C.,& Frattini, T. (2012). Immigration: The European experience. (Norface Discussion Paper Series 2012001).London, UK: Norface Research Program on Migration, Department of Economics, University College London.

Ebbinghaus, B. (2012). Comparing welfare state regimes: Are typologies an ideal or realistic strategy? (Draft Paper presented at European Social Policy Analysis Network, ESPAnet Conference, Edinburgh, UK, September 6-8,2012). Retrieved from [http://www.espanet2012.info/data/assets/pdf_file/0005/89033/Ebbinghaus - Stream 2.pdf](http://www.espanet2012.info/data/assets/pdf_file/0005/89033/Ebbinghaus_-_Stream_2.pdf)

EC, European Commission (2008). *Industrial Relations in Europe 2008*. Luxembourg, Luxembourg: Office for the Official Publications of the European Communities.

Esping-Andersen, G. (1990). *The three worlds of welfare capitalism* (Vol. 6). Cambridge, UK: Polity press.

Esping-Andersen, G. (1999). *Social Foundations of Postindustrial Economies*, Oxford: Oxford University Press.

Estevez-Abe, M., Iversen, T. and Soskice, D. (2001): Social protection and the formation of skills: A reinterpretation of the Welfare State. In P.A. Hall, & D. Soskice (Eds.), *Varieties of Capitalism. The institutional foundations of comparative advantage* (pp. 145-183). Oxford, UK: Oxford University Press.

Garrido, M., Rissolai, G., Rastrelli, M., Diaz, A., & Ruíz, J. A. (2009). *Immigrant women, e-skills, and employability in Europe: The case of Hungary, Italy, the Netherlands, Romania, and Spain*. Technology & Social Change Group (TASCHA).

Giulietti, C., M. Guzi, M. Kahanec, & K. F. Zimmermann. (2013). Unemployment benefits and immigration: Evidence from the EU. *International Journal of Manpower*. 34(1), 24–38.

Giulietti, C. & J. Wahba. (2013). Welfare Migration. In: Zimmermann K.F. and A.F. Constant (Eds.) *International Handbook on the Economics of Migration*, Cheltenham: Edward Elgar Publishing, 1015-1048.

Guzi, M., & Kahanec, M. (2015, forthcoming) Socioeconomic cleavages between workers from new member states and host-country labour forces in the EU during the great recession. In M. Bernaciak (Ed.), *Market expansion and social dumping in Europe*. London, UK: Routledge.

Guzi, M., Kahanec, M., & Kureková, L. (2015, forthcoming). *What explains native-immigrant gaps in European labor markets: The role of institutions*. Bonn: Institute for the Study of Labor.

Hall, P.A., & Gingerich, D. W. (2004). *Varieties of Capitalism and Institutional Complementarities in the Political Economy: An Empirical Analysis*. (MPIfG Discussion Paper 04/5). Cologne: Max Planck Institute for the Study of Societies. Retrieved from www.mpifg.de/pu/mpifg_dp/dp04-5.pdf

Hall, P., & Soskice, D. (Eds.) (2001). *Varieties of capitalism: The institutional foundations of comparative advantage* (pp. 1-68). Oxford, UK: Oxford University Press.

Hancké, B., Rhodes, M., & Thatcher, M. (Eds.). (2007). *Beyond varieties of capitalism: Conflict, contradictions, and complementarities in the European economy*. Oxford, UK and New York, NY: Oxford University Press.

Hansen, J.& Lofstrom, M. (2003). Immigrant assimilation and welfare participation: Do immigrants assimilate into or out of welfare? *Journal of Human Resources*, 38(1).

Heinesen, E., Husted, L., & Rosholm, M. (2011). The effects of active labour market policies for immigrants receiving social assistance in Denmark. *IZA Discussion Paper*, 5632. Bonn: Institute for the Study of Labor.

Heitmueller, A. (2002). Unemployment benefits, risk aversion and migration incentives. *IZA Discussion Paper*, 610. Bonn: Institute for the Study of Labor.

Hemerijck, A., Palm, T., Entenmann, E., & VanHooren, F. J. (2013). Welfare States and the evolution of migrant incorporation regimes. (Background paper reviewing welfare state structures and reform dynamics in a comparative perspective, IMPACIM project). Retrieved from: http://www.compas.ox.ac.uk/fileadmin/files/Publications/Research_projects/Welfare/IMPACIM/IMPACIM_Changing_European_Welfare_States.pdf

Holzmann, R., Koettl, J., & Chernetsky, T. (2005). Portability regimes of pension and health care benefits for

international migrants: An analysis of issues and good practices. (Prepared for The Global Commission on International Migration, 23 May 2005). World Bank.

IOM (2005). *Migration and Contemporary Welfare State. Migration Report 2005*. Geneva, Switzerland: International Organization for Migration.

IOM (2013). *Recognitions of Qualifications and Competences of Migrants*. Brussels, Belgium: International Organization for Migration.

Kaczmarczyk, P. (2013). *Are immigrants a burden for the state budget?* (Review paper). Robert Schuman Centre for Advanced Studies Research Paper 2013/79.

Kahancová, M., & Szabo, I. (2012). *The Role of Labour Unions for Costs and Benefits of Migration*. CEU, mimeo.

Kahanec, M., & K.F. Zimmermann (eds.). (2010). *EU Labor Markets After Post-Enlargement Migration*. Berlin: Springer Verlag.

Kahanec, M., & K.F. Zimmermann (eds.). (2015). (Forthcoming.) *Labor Migration, EU Enlargement, and the Great Recession*, Berlin, Heidelberg: Springer Verlag.

Kahanec, M., & A. Zaiceva. (2009). Labor market outcomes of immigrants and non-citizens in the EU: An east-west comparison. *International Journal of Manpower* 30(1+2), 97-115.

Kahanec, M., Zimmermann, K. F., Kureková, L., & Biavaschi, C. (2013). *Report No. 56: Labour migration from EaP countries to the EU – Assessment of costs and benefits and proposals for better labour market matching*. Bonn, Germany: European Commission.

Kerr, S. P., & Kerr, W.R. (2011). Economic impacts of immigration: A survey. *Finnish Economic Papers*, 24(1), 1-32.

Koettl, J., Holzmann, R., & Scarpetta, S. (2006). *The relative merits of skilled and unskilled migration, temporary and permanent migration and portability of social security benefits*. World Bank Social Protection Discussion Paper 614.

Kubal, A. (2009). Why semi-legal? Polish post-2004 EU enlargement migrants in the United Kingdom. *Journal of Immigration Asylum and National Law* 23(2), 148-164.

Kureková, L. (2013). *Welfare systems as emigration factor: Evidence from the new accession states*. *JCMS: Journal of Common Market Studies* 51(3), 721–739.

Kureková, L., Beblavý, M., Haita, C., & Thum, A. E. (2013). Demand for low-and medium-skilled workers across Europe: Between formal qualifications and non-cognitive skills. *NEUJOBS Working Paper 4.3.3*.

Kureková, L., Bulková, M., & Borovanová, M. (2012). *E-zručnosti pre zamestnateľnosť žien. Záverečná správa z implementácie výskumného a terénneho projektu*. Bratislava: Slovak Governance Institute. Retrieved from: <http://www.governance.sk/assets/files/publikacie/Zaverecna-sprava-z-implementacie.pdf>

Kvist, J. (2004). Does EU enlargement start a race to the bottom? Strategic interaction among EU member states in social policy. *Journal of European Social Policy* 14(3), 301-318.

-
- Lauder, H., Brown, P. and Ashton, D. (2008). Globalisation, skill formation and the varieties of capitalism approach. *New Political Economy* 13(1), 19–35.
- Lucio, M. M., Skule, S., Kruse, W., & Trappmann, V. (2007). Regulating skill formation in Europe: German, Norwegian and Spanish policies on transferable skills. *European Journal of Industrial Relations* 13(3), 323–40.
- Makszin, K. (2013). *Reforming East Central European Welfare States. Governments, technocrats, and the patterns of quiet retrenchment*. (Doctoral dissertation). Central European University, Budapest.
- Martin, C. J., & Thelen, K. (2007). The State and coordinated capitalism. *World Politics* 60(October), 1-36.
- Meardi, G., Martin, A., & Lozano Riera, M. (2012). Constructing uncertainty: Unions and migrant labour in construction in UK and Spain. *Journal of Industrial Relations* 54(1), 5-21.
- Menz, G. (2003). Re-regulating the Single Market: National varieties of capitalism and their responses to Europeanization. *Journal of European Public Policy* 10, 523–55.
- Menz, G. (2009). *Political economy of managed migration*. Oxford, UK: Oxford University Press.
- Nannestad, P. (2004). Games real actors won't play? Integration of ethnic minorities in Denmark as a collective action dilemma. *International Migration Review*, 38(1), 287-308.
- Nannestad, P. (2007) Immigration and Welfare States: A survey of 15 years of research. *European Journal of Political Economy* 23, 512–32.
- Nordin, M., & Rooth, D. (2007). The income gap between natives and second generation immigrants in Sweden: Is skill the explanation? *IZA Discussion Papers*, 2759.
- Oaxaca, R. L. (1973). Male-female wage differentials in urban labour markets. *International Economic Review*, 14, 693-709.
- Benefits and Wages. OECD Indicators, OECD, Paris 2002
- Employment Outlook, OECD, Paris. 1998
- Palier, B., & Thelen, K. (2010). Institutionalizing dualism: Complementarities and change in France and Germany. *Politics and Society* 38, 119–48.
- Pedersen, P. J., M. Pytlikova, & N. Smith. (2008). Selection and Network Effects: Migration Flows into OECD Countries 1990-2000. *European Economic Review*. 52(7), 1160–1186.
- Ramos R., Matano A., & Nieto S. (2013). Immigrant-native wage gaps and the returns to human capital. *IZA Discussion Papers*, 7701, Bonn: Institute for the Study of Labor.
- Rosso, A. (2013). Skill premia and immigrant-native wage gaps. *LLAKES Research Paper*, 45.
- Schierup, C.-U., Hansen, P., & Castles, S. (2006). *Migration, citizenship, and the European Welfare State: a European dilemma*. Oxford, UK: Oxford University Press.
- Ruhs, M. (2011). Openness, skills and rights: An empirical analysis of labor immigration Programs in 46 high-

and middle- income countries. *COMPAS WP 88*.

Streeck, W. (1992). *Social institutions and economic performance*. London, UK: Sage.

Traxler, F. (2002). Wage regulation between industrial democracy and market pressures — Towards a European model? *European Sociological Review* 18(1), 1-16.

Van de Werfhorst, H.G. (2011). Skill and education effects on earnings in 18 countries: The role of national educational institutions. *Social Science Research* 40(4), 1078–90.

Vanhuyse, P. (2006). *Divide and pacify: Strategic social policies and political protests in post-communist democracies*. Budapest, Hungary: CEU Press.

Visser, J. (2006). The five pillars of the European Social Model of Labour Relations. In J. Beckert, B. Ebbinghaus, A. Hassel, & P. Manov (Eds.), *Transformationen des Kapitalismus* (pp. 315-316). Köln, Germany: Campus Verlag.

Warin, T., & Svaton, P. (2008). European migration: Welfare migration or economic migration? *Global Economy Journal*, 8(3), 1-32.

Yun, M.-S. (2004). Decomposing differences in the first moment. *Economics Letters* 82, 275–280.

Zimmermann, K.F., DeVoretz, D., Kahanec, M., Gataullina, L., Constant, A., & Zaiceva, A. (2008). Study on the social and labour market integration of ethnic minorities. *IZA Research Report*, 16.

Zimmermann, K.F., Kahanec, M., Giulietti, C., Guzi, M., Barrett, A., & Maitre, B. (2012). *Report No. 43: Study on Active Inclusion of Migrants*. Bonn, Germany: European Commission.