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Labour Migration from EaP Countries to the EU – Assessment of Costs and Benefits and Proposals for Better Labour Market Matching

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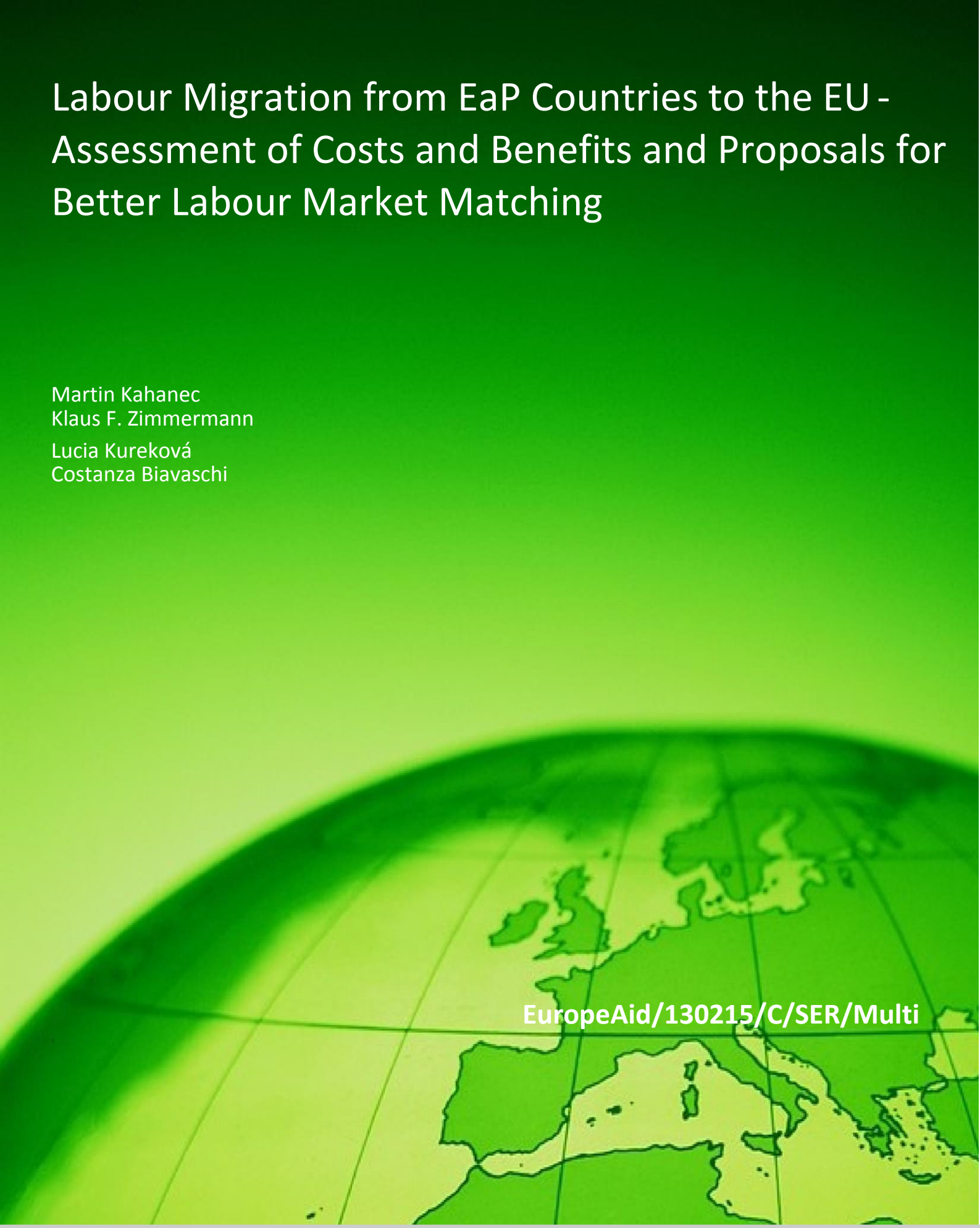

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June 11, 2013

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The views expressed in this paper are those of the authors, and should not be interpreted as representing the official position of the European Commission and its institutions

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1. Abbreviations

CEDEFOP - European Center for the Development of the Vocational Training founded in 1975.
CEE countries – countries of Central and Eastern Europe - EU 2004 and 2007 entrants minus Cyprus and Malta: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.
CES (production function) – Constant Elasticity of Substitution production function used in economics.
CIS – Commonwealth of Independent States
CMR – Comprehensive Monitoring Report (usually prepared by the European Commission concerning specific area in specific country).
COMECON/CMEA (1949-1991) - Council of Mutual Economic Assistance, also known as Organization for International Economic Cooperation (since 1991). Members: Soviet Union (USSR), Eastern Bloc countries (Bulgaria, Czechoslovakia, East Germany (since 1950), Hungary, Poland, Romania), and extra regional socialist countries – Mongolia (since 1962), Cuba (since 1972), Vietnam (since 1978). Albania participated in 1949-1961; number of other countries had observer status (Yugoslavia (since 1964), Finland (since 1973), Iraq, Mexico (both since 1975), Nicaragua (since 1984), Afghanistan, Ethiopia, Laos, South Yemen (all since 1986)).
EaP – Eastern Partnership, Initiative launched in May 2009 as an enhanced regional cooperation policy developed by the European Union for Eastern European and Southern Caucasus states: Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine (**EaP countries**).
EEA – European Economic Area comprising EU Member States, Iceland, Liechtenstein and Norway.
EC – European Commission.
Eurostat – Statistical Office of the European Union.
EU – the European Union.
EU27 – all current EU Member States: Austria (AT), Belgium (BE), Bulgaria (BG), Cyprus (CY), the Czech Republic (CZ), Denmark (DK), Estonia (EE), Finland (FI), France (FR), Germany (DE), Greece (GR), Hungary (HU), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg, (LU) Malta (MT), the Netherlands (NL), Poland (PL), Portugal (PT), Romania (RO), Slovakia (SK), Slovenia (SI), Spain (ES), Sweden (SE), and the United Kingdom (UK).
EU15 – EU Member States before 2004 and 2007 enlargements: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.
EU15+ – EU15, Iceland, Liechtenstein, Norway and Switzerland.
EU12 – EU 2004 and EU 2007 entrants: Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, and Slovenia.
EU10 – EU 2004 entrants: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

EU8 – EU 2004 entrants minus Cyprus and Malta: the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia.
EU2 - EU 2007 entrants: Bulgaria and Romania.
EU8+2 – EU 2004 and 2007 entrants minus Cyprus and Malta: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.
EU14 – EU 15 Member States minus Luxembourg: Austria, Belgium Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.
EU25 – 27 EU Member States minus Bulgaria and Romania: Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.
EU LFS - European Union Labour Force Survey.
EU SILC - European Union Statistics on Income and Living Conditions.
GDP – Gross Domestic Product.
GDP (pc) – Gross Domestic Product per capita.
GDP (PPP) - Gross Domestic Product derived from Purchasing Power Parity.
FE – Fixed Effects Model used in econometrics and statistics.
IV – Instrumental Variables estimating method used in econometrics and statistics.
ICTWSS database - Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts between1960 and 2007 in 34 countries: Australia, Austria, Belgium, Bulgaria, Canada, Cyprus, the Czech Republic, Denmark, Estonia, Germany, Greece, Finland, France, Hungary, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, the Netherlands, New Zealand, Malta, Norway, Poland, Portugal, Romania, Spain, Slovenia, Slovakia, Sweden, Switzerland, the United Kingdom, and the United States.
INTAS - International Association for the promotion of cooperation with scientists from the newly independent states (NIS), i.e. former Soviet Union Republics excluding 3 Baltic States.
ISCED - International Standard Classification of Education designed by UNESCO in 1970's.
ISCO – International Standard Classification of Occupations adopted in 1957 by International Labour Organization (ILO).
Istat LFS – Italian National Institute of Statistics, Labour Force Survey.
IT – Information Technology (industry).
MAC - Migration Advisory Committee (UK).
MIPEX – Migrant Integration Policy Index, tool used to measure integration policies in EU Member States, Norway, Switzerland, Canada and the USA.
NACE classification – Statistical classification of economic activities in the European Community (derived from French "Nomenclature statistique des activités économiques dans la Communauté européenne").
NAIRU – Non-Accelerating Inflation Rate of Unemployment; type of unemployment level analysis used in economics.
NGO – Non-Governmental Organisation.

NIESR – National Institute of Economic and Social Research (UK).
NiGEM - National Institute Global Econometric Model (developed by NIESR).
NINo – National Insurance Number, Ireland
OECD – Organisation for Economic Cooperation and Development; founded in 1961, includes 34 members: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.
OLS - Ordinary Least Squares method used for unknown parameters estimation in statistics.
PBS - Points Based System (migration scheme applied in UK).
PCI - Per Capita Income.
PCI ratio – Per capita income in destination country divided by per capita income in country of origin.
PPP - Purchasing Power Parity.
RDS – Research, Development and Statistical Directorate (UK).
SAWS - Seasonal Agricultural Workers Scheme (migration scheme applied in UK).
SBS –Sector Based Schemes (migration scheme applied in UK).
2 SLS – Two Stage Least Squares Estimating Method used in econometrics.
STEM subjects – subjects in the fields of Science, Technology, Engineering, and Mathematics.
UNESCO – United Nations Educational, Scientific and Cultural Organisation established in 1945, including 195 Members and 8 Associate Members.
USSR – Union of 15 Soviet Socialist Republics (formally dissolved in 1991) including current Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.
WDI - World Development Indicators, primary World Bank collection of development indicators, compiled from officially-recognised international sources.

2. Executive Summary

Aims

This report measures and evaluates the costs and benefits of migration from Eastern Partnership countries to Europe in the past and in the medium-term future (up to 2020), considering different scenarios of economic development and alternative migration frameworks, in order to inform policy about possible recommendations on labour migration management framework between the EU and EaP region. It relies on complex and diverse set of methodologies, and gathers rich and systematic empirical material. The report points out that policy intervention needs to go beyond migration policy alone in order to achieve better labour market matching and to bring most benefits and least costs to receiving countries, sending countries and migrants.

Key argument

Evaluating the lessons from multiple contexts and employing a robust projection model, we estimate that it is reasonable to expect steady (and rather modest compared to other immigrant groups) migration flows from EaP countries (mostly Ukraine) to the European Union over the next decade. Temporarily increased flows should be expected if a more liberal migration framework between the EU Member States and Eastern Partnership countries is put in place. Based on assessment of EU's labour market needs, learning from the experience of EU's Eastern enlargements and finding a generally positive effect of EaP migration to Europe so far, we conclude that migration from EaP countries is a positive and desirable phenomenon. Moreover, a general finding consistent with all the applied methodological approaches is that the effects of migration are more positive in case of liberalisation of migrant's access to host countries' labour markets, as it provides for better matching and so more favourable impacts on sending and receiving countries and migrants.

What do we know about EaP migration to Europe so far?

Current EaP migration to Europe is not sizeable, but has grown in absolute numbers during the last decade, up to the Great Recession. In 2010, migrants from EaP countries represent only 3.58% of total immigration to EU25 countries, which equals a total of about 1.5 million. EaP migrants are distributed across the EU countries unevenly and due to its size originate mainly from Ukraine. The recent EU enlargements have re-directed EaP migrant flows within Europe. As EU8 + EU2 migrants have been filling low-skilled vacancies, some EU15 countries (e.g. UK) hardened the entry of EaP migrants. Legal frameworks in EU8 countries have on the other hand become more open towards EaP migrants. Due to historical reasons, EaP migrant presence in EU8 countries is currently relatively more prominent than in the EU15 when compared to other immigrant groups.

In all countries, the EaP migrants are found to be rather well educated, often exceeding the education attainment levels of natives and other immigrants. Most EaP migration appears temporary. EaP migration is gendered along sectors of employment, with males dominating e.g. construction and agriculture and females overrepresented in e.g. domestic and care services. Some of the strong push factors for emigration from EaP region are a risk of unemployment and poor career prospects in home countries even for highly skilled migrants.

In spite of high level of educational attainment, EaP migrants predominantly find employment in low-skilled and unskilled sectors, such as agriculture, construction and domestic and care services. Allocation of EaP migrants to low-skilled sectors can be explained by existence of demand in these sectors, constraints of legal framework in the receiving countries, and difficulties with recognition of qualifications. Downskilling is also a function of the length of stay in labour market and EaP migrants tend to integrate with time. Poor quality of education in the sending countries and poor knowledge of the host country language could be additional factors for downskilling.

What have been the costs and benefits of EaP migration for Europe?

EaP migrants enter the EU predominantly for employment purposes, which is reflected in their favourable employment rates, especially when compared to immigrants from other third countries. Average employment rates are well above those of other immigrant groups, ranging between 60 and 70 per cent (e.g. in Spain, Italy or Poland). Our own analysis, in congruence with existing data and literature, show that EaP migrants have in general no negative effect on wages or employment of other groups of workers in receiving countries. Occupational distribution suggests the presence of complementarities rather than substitution between migrants and natives. In addition, labour market effects are limited also in view of the relatively small size of the EaP migrant populations relative to the host populations or other immigrant populations in receiving countries. EaP migrants do not have disproportionately higher welfare take-up rates than other migrants as concerns the use of social assistance or social benefits. The Great Recession has worsened labour market outcomes of EaP migrants. This is a result of their employment in the sectors, which have been disproportionally affected by the recession, especially construction. Return of EaP migrants was more likely in those countries and contexts, where the possibility of re-entry was easier (e.g. temporary migration frameworks in Poland).

Comparing the effects of EU8+2 migration with past EaP migration to Europe, at the macro-level we find positive effects of recent post-enlargement labour mobility on EU's GDP, GDP per capita, as well as employment. This result appears to be conditional on free access to the EU's labour markets, such as in the case of EU8+2 immigrants. We observe a small negative effect of migration in case of restricted access to EU labour markets, as in the case of EaP immigration. This result could in part be driven by restrictive migration policy frameworks towards EaP migrants that

appear to hamper migrants' potential to integrate and improve the allocative efficiency across EU labour markets.

What skills does the European Union need in medium-term future?

Labour market needs are currently very diverse across Europe. Several countries in Europe are or will be in need for engineers, health professionals and other highly-skilled professions in management and business administration. Lack of sufficient labour supply is also expected in low-skilled occupations. In particular, a further shift towards the service sector and aging of EU societies might further increase the need for immigration of domestic and care service workers.

Can EaP migrants fill EU's skill needs?

We find that non-EU migrants respond to labour shortages in the EU more flexibly than native workers of similar characteristics. EaP migrants in particular fill the existing skill gaps, especially in low-skilled sectors: agriculture (Poland), household services and personal care (Spain, Italy, Germany), construction (Poland, Italy) and retail and hospitality (UK, Germany). EaP migrants, primarily migrant women, have played an important positive role in filling shortages in social and care services and have enabled native, primarily female, labour force to participate in employment.

As EaP migrants across the analysed countries represent one of the best educated migrant groups, they are generally well suited to fill in demand in high-skilled sectors and represent a channel for further human capital development in the EU. However, it is relatively seldom that EaP migrants find employment in correspondingly skilled occupations. Poor skill matching of EaP migrants with tertiary education is therefore a problem from the perspective of EU needs for highly skilled migrants. The reasons for downskilling lie in institutional barriers, such as complicated recognition of qualifications. Downskilling may also be an acceptable option for temporary migrants, whose time horizon does not permit sufficient returns on investment in country-specific human capital, which is then not undertaken. Short-term migrant strategies, however, might be responding to barriers in entry and integration into the EU societies.

Future migration from EaP region and its predicted effects

Fears over uncontrollable inflows following liberalisation of labour markets are unjustified. Based on an established prediction model taking into account demographic, economic and policy variables as well as network effects we project modest migration flows from the EaP to the EU until 2020. Our analysis shows that between 2011 and 2020 we can expect the following net migration flows from the EaP countries to the EU14:

- under the baseline scenario of no policy change on average about 100 thousand migrants per annum (1.03 million migrants over 2011-2020),

- liberalisation of short-stay visa leads to essentially no additional migration,
- labour market liberalisation is projected to result in on average 100 to 300 thousand additional migrants per annum (0.96 to 3.03 million additional migrants over 2011-2020), depending on economic conditions as well as migration policies (selective or full liberalisation).

Correspondingly, for the EU8 we can expect:

- under the baseline scenario of no policy change on average about 40 thousand net migrants from the EaP per annum (0.4 million migrants over 2011-2020),
- essentially no additional migrants if short-stay visa is liberalised,
- selective labour market liberalisation is projected to result in little additional migration, up to 8 thousand migrants per annum; full liberalisation is projected to result in on average 37 thousand additional migrants per annum – this implies between 0.08 and 0.56 million additional migrants over 2011-2020, depending on economic conditions as well as migration policies (selective or full liberalization) .

Most migrants are predicted to go to Italy and Germany, and originate from Ukraine.

The policy framework has a key role in affecting observable migration flows. The most important variable affecting observable flows of migrants are policy indicators, while migration costs and economic conditions matter less. Among policy factors, partial liberalisation is less powerful than full liberalisation. Visa liberalisation leads to no additional increase in migration. Observed flows follow an inverse U-pattern and after an initial rise, they tend to decline.

An established NiGEM simulation model predicts that the projected migration from the EaP to the EU is likely to have a positive impact on host countries' GDP over the 2010-2020 period. There may be short-term costs in terms of slightly higher unemployment, but migration reduces inflationary pressures. In effect, a more liberal migration framework with EaP countries is likely to bring greater benefits to host EU countries, especially as concerns host countries' GDP and inflation. Specifically under the baseline scenario "Closed Europe" we find:

- Positive effects on GDP and GDP per capita, reaching 0.129 percentage points in the EU14 and 0.296 percentage points in EU8 above the no-migration benchmark by the end of 2020.
- Anti-inflationary effects, attaining -0.15 percentage points in the EU14 and –0.297 percentage points in the EU8 by 2020.
- Small effects on unemployment, increasing it by 0.009 percentage points in the EU14 and 0.058 percentage points in the EU8 by 2020.

Under "Cautious" and "Progressive Europe" scenarios the magnitude of the effects increases, yielding:

- 0.307 percentage point increase of GDP in the EU14 and 0.868 percentage point increase of GDP in the EU8 by 2020 under "Cautious Europe" scenario,

- 0.490 percentage point increase of GDP in the EU14 and 1.919 percentage point increase of GDP in the EU8 by 2020 under "Progressive Europe" scenario.

What scope for migration do existing EU and national migration frameworks provide?

The existing labour migration policies across EU are diverse and differ in their scope and entry criteria. With a few exceptions, e.g. Poland, in most cases governmental programs do not target EaP countries specifically, but rather apply to third country nationals generally. This is mainly due to different labour market conditions, migration histories with the EaP countries, as well as the impact of the Great Recession, which has in some countries led to more restrictive migration policies.

Existing legal frameworks shape migration patterns by influencing length of stay, routes of and selection upon entry, and sectoral allocation. Receiving countries' migration frameworks but also their more general institutional and structural environment, especially labour market regulation and available types of contractual arrangements, strongly impact upon the possibilities for circular migration, especially of migrants employed in low-skilled sectors. Notably, imposition of stricter policies in one receiving country has spillover effects on migration trends elsewhere in Europe. Regularisations and amnesties targeting irregular migrants have served as interventions yielding *ex post* benefits to migrants as well as host countries, but may create an *ex ante* moral hazard problem.

There are strong indications that the expensive and burdensome immigration procedures and generally restrictive migration policies currently characterizing most of the EU Member States are dis-incentivizing migrants from seeking legal routes of entry and employment and diverting them into irregularity. Currently applied entry regulations tend to complicate the circulation of migrants through ineffective border controls, contract-dependent residence permits, and lengthy bureaucratic processes of application and renewal of the documents. Another undesirable consequence is that migrants often develop various forms of dependencies on employers and intermediaries.

Migration policy alternatives

Liberalisation of labour markets with EaP countries

The first-best policy option, based on the findings that (i) the European Union needs EaP migrants to provide the much needed labour force and fill-up skill shortages, (ii) liberalization of short-stay visa regimes leads to essentially none, and liberalization of access to labour markets to only modest, incremental migration flows, and (iii) labour market matching improves if migrants are allowed to freely adjust to changing labour market conditions, we propose gradual liberalisation of mobility between the

European Union and the Eastern Partnership countries. We evaluate gradual liberalisation as a triple-win scenario, in regard of the economic benefits and improved allocative efficiency of labour markets in receiving countries, potential for brain circulation and remittances for the sending countries and increased range of career possibilities for migrants themselves. Additional benefits lie in the relative simplicity and low implementation costs of liberalisation policies, lower migration costs for migrants and lack of rents for migration intermediaries.

Visa liberalisation and facilitation

A natural first step in gradual liberalisation is the liberalisation and facilitation of visa regimes. We find liberalisation of short-stay visa to have essentially no effect on the scale of additional migration inflows. The main benefits of visa liberalisation for receiving and sending countries lie in improved potential for circular migration and labour market matching, as well as in decreased pecuniary and non-pecuniary costs for migrants and their families.

Labour market liberalisation and bilateral temporary migration frameworks

We propose to extend the Blue Card migration framework to encompass broadly-defined skilled workers, based on a transparent points system rewarding qualifications, job experience, language skills and age. Of central importance are complementary provisions for immigration of family members, measures facilitating integration into the labour market but also social services and assistance, and transparent rules for long-term residence and employment in the EU.

As a general recommendation we propose the abandonment of the administrative labour market test policy in favour of labour market driven selection (i.e. of those obtaining a job offer in the country), possibly combined with general universally applied selection criteria (See Blue Card). We also propose the adoption of transparent policy rules for, and decrease the costs of, work permit acquisition, renewal or change. In addition, to further facilitate labour market matching we recommend that work permits are not tied to single job, employer, industry or region. A related proposal is to provide for grace periods regarding expiration of work and residence permits to facilitate adjustment by migrants, e.g. when seeking new employment. Similar provisions should govern work and residence permits for graduating students and immigration of family members.

Bilateral and multilateral programmes between EaP countries and Member States especially concerning temporary and seasonal migration would allow for targeted opening based on needs of receiving countries and the potential of sending countries. Considerable scope exists for enhanced special migration provisions between the EaP countries and EU countries which are in need of domestic and care service workers, or specific types of high-skilled workers. The existing bilateral frameworks on transferability of social rights need to be reviewed to identify functional mechanisms and possible bottlenecks for different types of migrant workers.

Improvements in migrant integration

The successful implementation of migration policies in terms of improved labour market matching requires complementary migrant integration policy frameworks. These relate to many spheres of life, including skill transferability, social rights, elimination or reduction of informational gaps, management of public opinion, and involvement of relevant stakeholders.

Facilitation of skill transferability

To overcome barriers leading to downskilling, we propose to facilitate recognition of qualifications in the spirit of the rules applying to intra-EU mobility. To overcome the discrepancies in the scope and quality of formal qualifications in the EaP and the EU, this includes the provision of a qualification recognition framework.

Enforcement, equal access, and portability of social rights

More balanced outcomes of migration for migrants and society as a whole can be achieved by better promotion and enforcement of equal social rights and working conditions of migrants. Portability of social rights is the backbone of improved mobility and labour market matching in the context of mobility between the EU and third countries, EaP in particular. It is especially important in regard of temporary and circular migration trajectories. We therefore propose that regulations governing the access to and portability of social rights for EU citizens are gradually extended to apply to EaP migrants as well. An important advantage for receiving countries would be the increased incentives to contribute to pension schemes guaranteeing a high degree of portability, and thus improved collection of contributions. This proposal includes efforts to harmonise national regulations in the sending countries with EU regulations. Such measures are likely to incentivise regular migration as well as encourage high-skilled mobility and brain circulation. Bilateral frameworks on social rights transferability are a useful transitional approach.

Provision of information and 'one-stop shops' for migrants

A lack of information disempowers migrants and exposes them to risk of exclusions or abuse. Making free consultancy centres, hot lines and outreach trainings available for migrants would help reducing the risk of abuse of the migration system by some intermediaries. Offering these services under one roof as 'one stop shops' in the EaP countries and EU Member States would be cost-effective and convenient for migrants. In the labour market a lack of information about job opportunities results in poor labour market matching. Strengthening of the capacity of employment agencies to provide for the needs of migrants is necessary to ensure better labour market matching of migrants in host labour markets.

Invest into legislative improvements in employment and labour regulation in the geriatric and care sector

The need for migrant labour in the geriatric and care sector is likely to grow. More supportive employment and labour regulations should be passed that would shelter

the migrants in cases of the death of the employer and would allow migrants time, shelter and security needed to find a new job.

Reward good behaviour of migrants
In order to attract skilled migrants to fill up labour market gaps, more stability and better prospects for possible full integration need to be available as an option. We propose to promote best practices to citizenship/permanent residence path to increase the transparency and predictability of migrants' plans.

Facilitate return migration and integration after return
Sending countries should assist migrants by providing targeted information on various aspects of re-integration in order to facilitate return, circulation and re-integration.

Involve stakeholders
The involvement of a broad range of stakeholders who can assist migrants needs to be promoted. Governmental and non-governmental organisations, civil society organisations, trade unions and the business sector, and migrants' representatives in particular can provide social fabric conducive to migrant integration in receiving and sending countries. These actors should be actively involved in design and implementation of migration and integration policies.

Strengthen and mobilize diasporas
Migrants in sending countries (diasporas) can build an important basis for the effective attraction of the needed additional temporary and permanent workers. Diasporas can support circularity, and strengthen the economic relationships between sending and receiving countries through trade (imports, exports), investment and innovations. Diaspora organizations can play an important role in this.

Inform public opinion about migration
Negative public opinion about migration represents a key obstacle for Europe benefiting more from EaP migration. Improved dissemination of information about migration and its costs and benefits can help to break the vicious circle of negative attitudes towards migration leading to suboptimal policy reaction, which in turns results in adverse socio-economic outcomes, eventually further reinforcing the negative attitudes.

Overall message

There is much the EU, EU Member States, and EaP countries can do to enable all the involved stakeholders to benefit from increased labour mobility between the EU and EaP countries. An overarching paradigm should be that of transparent, participative and informed debate with stakeholders including the general public. Evidence-based policy making based on best practices should be a central policy paradigm. The role of data collection, independent evaluation and dissemination of findings, as well as

implementation of the lessons based on these findings into policy making, are all essential in this process. As concerns practical policy making, the paradigm of migration mainstreaming, whereby all labour and social regulations are scrutinised for their effects on mobile workers and all categories of migrants, needs to be adopted. Under such an approach the EU and EaP will mutually benefit from increased mobility between the two blocs, providing for sustainable prosperity and strengthened competitiveness vis-à-vis their global partners.

3. Introduction

The goal of this report is to measure and evaluate the costs and benefits of migration from Eastern Partnership countries to Europe in the medium-term future (up to 2020). Considering different scenarios of economic development and alternative migration frameworks, we propose policy recommendations on labour migration management framework between the EU and EaP region. The report therefore focuses on two broad aspects: measurement of current and future costs and benefits of migration and recommendations on improvements of labour migration management to achieve better labour market matching.

Relying on complex cross-cutting methodologies, we estimate the impact of current immigration from the EaP countries on the labour markets in the EU. Using the EU's experience from Eastern enlargement, we develop a projection model which estimates expected flows of EaP migrants under different economic performance and migration policy alternatives. As a next step, we quantitatively evaluate the impact of different labour market liberalisation scenarios in the time period up to 2020. Gathering rich and systematic empirical material at the macro-level as well as micro-level and critical evaluation of existing EU and country-level policy initiatives helps us to propose a range of policy recommendations. These point toward a variety of areas that go beyond migration policy itself which need to accompany migration management processes in order to bring most benefits and least costs to receiving countries, sending countries and migrants.

We argue that it is reasonable to expect modest migration flows from EaP countries (mostly from Ukraine) over the next decade if the policy status quo is maintained, and somewhat increased but still moderate flows if a more liberal migration framework is implemented. Based on assessment of EU's labour market needs, migration potential in the EaP countries, and on finding generally positive effects of increased mobility to and within the EU, we see stable or moderately increased mobility as a positive and desirable outcome. Moreover, we consistently identify that the effects of migration are more positive in case of liberalisation which generates better matching and so more favourable impact for countries and migrants.

Before proceeding to present the evidence, we discuss our approach to analysing costs and benefits, methodology and data, which – wherever relevant - will be presented also in the appropriate Annexes at the end of the report.

1.1. *A conceptual note on costs and benefits*

Migration and mobility engender various effects on receiving and sending societies. Relocation of individuals and populations with all their social, economic, political, cultural, ethnic and other dimensions certainly affects sending and receiving societies in complex ways and in many domains. Some of these effects may be given economic interpretation and conceptualised as costs and benefits. For the purpose of this report it is necessary to define boundaries of what we understand to be costs and benefits of migration and how we measure them. To account for the complexity of the effects of

migration but to do this in a tractable way, we adopt a three-level conceptualisation of economic costs and benefits of migration.

More specifically, we look at migration-induced changes in wages, employment, labour market performance (e.g. matching the demand and supply of skills), GDP and the welfare state. We can distinguish between the following levels of effects within the cost-benefit analysis of migration:

- ***Direct economic effects*** of migration through changes/adjustments in the aggregate demand. Economic theory predicts that the receiving country will gain from migration by an increase in output through growth of the labour force (hence production means) and the pool of potential consumers. This can produce benefits in terms of e.g. GDP growth, employment, purchasing power and the size and diversity of consumer demand. Particular direct effects depend on the need of a certain country or sector for migrant workers, on migrants' skills, and on the sector where aggregate demand changes apply, as well as their particular institutional arrangements.
- ***Indirect economic effects*** of migration involve those affecting the economic situation of a country not directly through aggregate demand. These effects are mainly channelled through the labour market and welfare state arrangements. For example, the inflow of migrants may increase output and employment through increased labour supply and possible effects on wages. The incumbent labour force may be affected positively or negatively, depending on the degree to which immigrant labour is substitute or complement to incumbent labour. Labour market institutions channel, constrain or redirect some of these effects. Specifically, immigrant integration into the host countries' welfare systems may entail various costs and benefits, such as those related to migrants' net contribution to public finances, which are also influenced by particular integration policies, migrants' legal status, as well as industrial relations arrangements. For example, if a labour market remains closed for migrants, migrants may be driven into using irregular channels of entry. In that case, secondary costs of migration would go up, as social security premiums are not paid at all by irregular migrants, although some social benefits and services may be used.
- ***Externalities of migration*** in general refer to social networks that migrants develop, secondary migration flows of families and children and their demand for housing, healthcare and education in the receiving countries. Other effects may arise through effects of immigration on natives' preferences, which may for example bring repercussions on the receiving countries' migration policies through institutionalised industrial relations institutions.

The effects of immigration depend on the degree to which immigrant labour is substitute or complement to labour of non-migrant (native or resident) labour (Chiswick, Chiswick, and Karras, 1992; Chiswick, 1980, 1998). The analysis outlined in Kahanec (2013) sheds light on the redistributive consequences of immigration and out-migration. These effects thus depend on the skill distribution in populations of migrants and non-migrants. For example, incumbent low-skilled workers benefit

from an inflow of skilled workers, who complement them in production and thus increase the demand for low-skilled labour, resulting in higher employment and/or higher wages of low-skilled workers. Correspondingly, such immigration may dampen the wages of high-skilled workers, although this needs not happen if the increased demand for low-skilled labour resulted in their higher employment and thus (through complementarity of low- and high-skilled labour) an increased productivity of high-skilled workers in spite of their increased relative abundance. One can in the same vein track the redistributive effects of low-skilled immigration and low- and high-skilled out-migration.

While this supply-demand framework is useful to elucidate the potential redistributive effects of migration, we need to note that other important factors may condition costs and benefits of migration. For example, migration may result in a better allocation of human capital, thus increasing productivity in the economy. It may also provide for cross-border social ties, thus facilitating international circulation of goods and services, capital, as well as ideas and knowledge (Bonin et al., 2008). All types of labour may benefit from the resulting increased efficiency and productivity. The increased diversity of the labour force may provide for additional benefits (Ottaviano and Peri, 2006). On the other hand, barriers to integration may hinder immigrants' adjustment to the conditions of the host society, which would adversely affect the effects migration may entail (Constant, Kahanec and Zimmermann, 2009; Kahanec, Kim and Zimmermann, 2011). Integration failures may lead to substandard labour market outcomes and possibly welfare dependency (Borjas, 1999; Brücker et al., 2002; Kahanec, Kim and Zimmermann, 2011; Zimmermann et al., 2012).

Circular migration has been commonly considered as a *win-win* scenario, which is considered to deliver benefits to sending and receiving countries as well as individual migrants (and their families) (Constant, Nottmeyer and Zimmermann, 2012). Circular migration can release the pressure of unemployment from the welfare system of the sending states and generate remittances that can be spent in the local economy (Caipijus 2010, Favel 2008, de Haas 2005). It can be an alternative to the brain drain characterising other forms of permanent and even temporary migration, turning "brain-drain" into "brain-gain" and "brain-return" (Mayr and Peri 2009). As it aims to encourage migrants' return, it can also serve as a tool for EU to manage the influx of immigrants and might facilitate more effective matching of supply and demand for migrant labour force without necessarily creating higher rates of permanent migration" (Iglicka *et al.* 2011: 24).

The receiving country gains flexible and temporary labour that does not pose the problems of integration and that is sensitive to "swings of markets and the shifting needs of employers as well as to the desires and plans of migrants who are not aiming at settling down in the destination country" (Triandafyllidou 2010: 11). Under such a scenario migrants are seen as benefiting from transnational labour market opportunities and the higher salaries in the receiving states. However, temporary migration is often based on the principle of unequal benefits as migrants' rights in the country of migration are linked first and foremost to one's employment contract. The

right for entering the country, further geographic mobility and circulation, the length of stay, ability to re-unite with the family, get access to various social provisions and health insurance in temporary migrating programs are often linked to *one* contract and the migrant's ability to renew it. This generates complex vulnerabilities for migrants. We therefore evaluate costs and benefits of migration in this report also from this perspective and propose conditions under which temporary migration is more likely.

1.2. *Approach, methods and data*

Given the breadth and depth of this study, we adopt a battery of methodological approaches to triangulate the costs and benefits of mobility and any relevant policy options. As a primary source of country-specific evidence, we conducted five country studies carefully selected for this study. The five EU country studies (Italy, Germany, Spain, Poland and United Kingdom) provide an in-depth scrutinisation of the costs and benefits as well as feasibility of increased labour mobility between the EaP countries and the studied EU countries. National experts gathered and examined the available data about EaP migrants and provided detailed analysis of their profiles and current performance in the host country labour market in view of assessing the potential of EaP migration to fill the anticipated labour market gaps in the EU. The country studies also bring important insights about past trends of EaP migration to the EU, their composition, performance, and sectoral and occupational allocation.

The country case studies are complemented by a number of original analytical inquiries into the costs and benefits as well as feasibility and projected effects of increased labour mobility between the EaP countries and the studied EU countries.

First, using a unique purpose-made dataset compiled from a number of sources we calibrate a prediction model enabling us to project dyadic migration flows between the EaP countries and the EU conditional on a number of archetypal migration scenarios conditioned by migration policies as well as macroeconomic and demographic variables. Given the recent experience of Europe with the Great Recession, that is the global economic decline during 2007-2009 and the ongoing Eurozone sovereign-debt crisis, migration scenarios take into account varied alternatives of economic growth in Europe in mid-term future.

Second, we utilise a well-established simulation model to evaluate the potential effects of projected migration flows on GDP, employment rate, wages and inflation in the receiving countries.

Third, using a unique dataset on international migration we investigate the effects of immigration from the Eastern Partnership Countries and the new EU member states on the EU economies. Using an empirical model accounting for the endogeneity of migration flows we evaluate the effects of immigration from these source countries on GDP, GDP per capita, capital stock, total factor productivity, employment rate, capital-labour ratio and output per worker.

Fourth, using the EU LFS and EU SILC data we evaluate the degree to which migrants and natives in Europe respond to increased job shortages across countries, sectors and occupations. This serves to evaluate the potential benefits of migration for the allocative efficiency of European labour markets.

Fifth, we complement these perspectives by a comparative qualitative small scale research providing knowledge and evidence about costs and benefits at the household and individual level from the point of view of migrants, rather than countries. This in particular helps us to generate insights about factors contributing to temporary migration and barriers that complicate it.

Sixth, based on a review of theoretical literature, we conceptually build a link between industrial relations and bargaining systems in particular and migration flows and costs and benefits of migration. We then use secondary resources to provide examples of evidence about selected country cases to identify some relationships through which the nature of industrial relations conditions the effects of migration on receiving countries in the EU.

We position our findings against a review of the current legal framework and the strengths and weaknesses ensuing from it. We complement our analytical findings with results from an own online IZA Expert Opinion Survey eliciting views of expert stakeholders The survey conducted in Autumn 2012 identifies expert stakeholders' views on the situation of immigrants in the EU, barriers to migrant integration and attitudes towards EaP migration. We also gather experts' views on policy framework best suited to address labour market needs and about likely migration dynamics following potential introduction of more liberal migration framework vis-à-vis EaP countries (See Box 1.1).

In our endeavour we rely on varied sources of data. First, across different studies we utilise representative cross-European survey data – EU LFS and EU SILC – as well as national representative sources to study profiles of migrants. In order to estimate current and past migration trends, we rely on a unique dataset of migrant flows (Adsera and Pytliková 2012, Pytliková 2012).[1] In country-level estimations, the EU country studies gather and compare different sources of data to measure EaP migration profiles and to estimate country-level effects. We also conduct own data collection efforts: first, we collect household level data by conducting interviews with Ukrainian migrants in Italy and Czech Republic to enrich findings from other studies and to better understand decision-making of migrants and different redistributive impact of migration at the household level. Second, we approach migration experts and practitioners across EU27 countries with an online survey to investigate the

[1] The dataset on international migration used for the analyses has been collected by Mariola Pytlikova and encompasses information on bilateral flows and stocks of immigrants from all world source countries in 42 destination countries over the period 1980–2010. The dataset has been collected by requesting detailed information on migration inflows and foreign population stocks by source country from selected national statistical offices in 27 OECD countries. For six OECD countries – Chile, Israel, Korea, Mexico, Russian Federation and Turkey - the data comes from the OECD International Migration Database. For nine other destinations – Bulgaria, Croatia, Cyprus, Estonia, Latvia, Lithuania, Malta, Romania and Slovenia – the data is collected from the Eurostat.

status quo of EaP migration and their views of key stakeholders' positions to migration and economically beneficial migration framework. Table 1 summarises the range of analytical inputs, applied methodologies and sources of data. Such triangulations of methods and data sources help us tackle some of the well-known limitations of migration data and provide more robust evidence to support our findings and ensuing policy recommendations.

Table 1: Summary of analytical inputs, methodology and data

Report/task type/title	Authors	Methodology and focus	Data
Country studies			
Italy	Sabrina Marchetti, Daniela Piazzalunga, Alessandra Venturini	Country study	National representative sources
Germany	Costanza Biavaschi, Klaus F. Zimmermann	Country study	National representative sources
Poland	Maciej Duszczyk, Marek Góra, Paweł Kaczmarczyk	Country study	National representative sources
Spain	Lidia Farre, Nuria Rodriguez Planas	Country study	National representative sources
UK	Stephen Drinkwater, Ken Clark	Country study	National representative sources
Background tasks			
Costs and benefits of EU10 and EaP migration	Mariola Pytliková, Martin Kahanec	Quantitative statistical analysis, 2SLS model	EU SILC, own migration dataset
Immigrant labour market matching in Europe	Martin Guzi, Martin Kahanec, Lucia Kureková	Quantitative statistical analysis, 2 stage estimation strategy: Stage 1: measurement of skill gaps Stage 2: measurement of migrants' (vis-à-vis natives') responsiveness to skill shortages	EU SILC, EU LFS
Migration projections	Michael Fertig, Martin Kahanec	Econometric projection model based on EU8 pre- and post-enlargement experience	Migration data from Holland et al. (2011) amended with own data gathering from Eurostat Population Statistics, a broad compilation of data on economic, social and demographic variables and projections.
Costs and benefits of projected flows	Tatiana Fic, NIESR London	NiGEM macroeconomic simulation model	Data generated from projections (Fertig and Kahanec, 2013)
Household level costs and benefits of migration	Olena Fedyuk	Small scale sociological study of Ukrainian migrants in Italy and Czech Republic	Own data collection based on interviews with a small sample of migrants
Role of labour unions for costs and benefits of migration	Marta Kahancová, Imre Gergely- Szabó	Conceptual and empirical review of link between industrial relations frameworks and migration costs and benefits	Literature review, case study empirical investigation
Other			
Institutional background, Italy & UK	Claire Gordon (UK) Simone Millio (IT)	Expert review	National sources
Expert Opinion Survey	Martin Kahanec, Lucia Kureková	Online survey targeting migration experts and practitioners	Own data collection from EU 27 countries

Box 1.1: Eliciting stakeholders' views: IZA Expert Opinion Survey 2012: Methodology and background

The IZA expert online survey aiming to investigate various aspects of the current EaP migration to the EU countries was conducted among the expert stakeholders between November 2012 and January 2013. The survey was distributed to NGOs, think thanks, international organisations, migrant organisations, employers and employees associations and other expert and practitioner groups dealing with migration and immigrant integration in EU27 countries. The survey provides valuable input for drawing concrete recommendations for EU's migration and mobility policy and enriches our understanding of the perceptions and attitudes towards existing migration exchange between the EaP countries and the EU countries. The questions were prepared to investigate the issues of attitudes, integration, barriers to labour market participation, evaluation of most significant benefits and costs, and assessment of economically desirable policy framework and policy changes. Some questions were framed with respect to different migration groups (non-EU, EaP, EU15 and EU12) to enable comparison across different groups, while others were asked about migrants and migration generally. The full questionnaire is available at the end of the report, and below we provide summary of key findings.

We received more than 80 responses from a wide range of EU27 countries. 72% of the responses came from organisations in EU15 countries, the remaining were from EU12 countries. The largest share of respondents - 40% - worked in non-governmental organisations. Governments, employers' associations and trade unions were equally represented (about 14% each). Academic institutions represented about 8% of answers, thinks tanks 3% and 6% belong to other types of institutions, typically international organisations. The survey respondents are closely connected to migrant communities as 55% stated that they interact with migrants regularly or often and another 22% sometimes.

1.3. Note on policy frameworks

Throughout this report we discuss and evaluate existing policy frameworks and study migration under different migration policy scenarios. In the range of policy options that we present in the final parts of the report, we discuss different alternatives and levels of liberalisation. We find it important to clarify the terminology and concepts that we are engaging with in the report, and we therefore summarise them in Table 2 below. The categories are not exclusive of each other and often might coexist. They are ordered from least to most profound, and we provide examples of current or past implementation which will also appear in the text.

Table 2: Conceptual review of migration policy alternatives

Migration policy alternatives	Explanation	Examples	Possible implementation / operational steps
Status quo	Existing migration framework	Discussed in Chapter 6	
Visa facilitation process	Typically bilateral steps taken towards conditional easing of visa policy	Fee waiver, visa waiver for specific categories, simplified application procedures, cancellation of short-term visa	Action plan on visa facilitation EU directive on procedural aspects of visa application process
Visa liberalisation	Liberalisation of visa regime	Cancelation of short-term visa or long-term visa	Bilateral agreement of visa cancellation (e.g. visa free regime between Czech Republic and Slovakia between 1993-2004) EU directive on visa cancellation
Selective liberalisation	Partial liberalisation based on sector, occupation, job shortage or combination of factors	Blue/green cards – eased assess of specific categories of workers Eased access based on shortage occupation list Preferential schemes for temporary workers from specific countries of origin	Selective liberalisation established through bilateral agreement Selective liberalisation on EU level – directive on a category of selective liberalisation (e.g. Researchers' directive, Blue Card directive) Temporary seasonal migration schemes between Poland and selected EaP countries SBS, SAWS – seasonal work schemes between UK and EU2
Restricted liberalisation	Time delayed liberalisation - transitory periods on free movement of workforce	EU2 accession to the EU in 2007	Accession agreement with conditions on free labour mobility (transitory periods, registration requirements, e.g. Worker Registration Scheme – UK)
Full liberalisation	Free movement of workers allowed – no visa, no work permit needed	EU8 accession after May 2011 Commonwealth of Independent States (CIS) regime between Russia and EaP countries	Accession agreement with no conditions on free labour mobility Loose labour market integration (e.g. CIS regime)

4. Characteristics of EaP migration

4.1. Magnitude of migration flows in Europe

The EU exhibits a relatively low rate of inter-state mobility (1 per cent per annum, vs. 3 per cent in the US).

Although slightly rising, migration from the EaP constitutes only a small fraction of total immigration to the EU: 3.46 and 3.68 per cent of total stock of immigrants in 1995 and 2010, respectively.

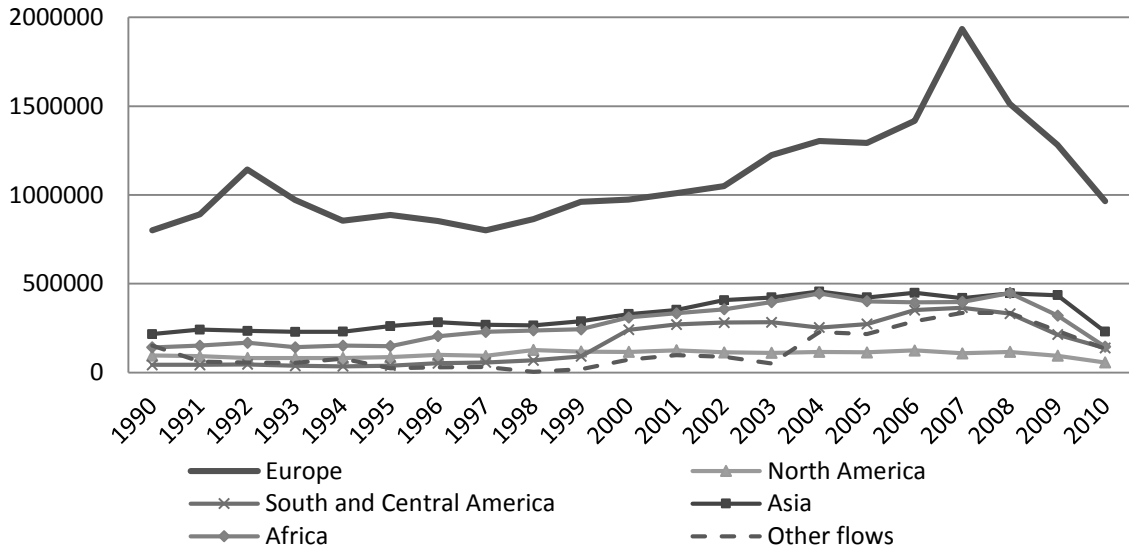
In 2010, the total EaP migrant population in EU27 was about 1.5 million. Most EaP immigrants came from Ukraine and went to Italy, Germany and Poland.

The Great Recession slowed down or diverted migration flows; return migration occurred if migration was of an inherently temporary nature and/or re-entry was facile.

The European Union exhibits a relatively low rate of labour mobility. The annual inter-state mobility of the working-age population in the EU15 prior to the 2004 enlargement was about 1 per cent, compared to around 3 per cent in the United States, 2 per cent in Australia and Canada, and 1.7 per cent in the Russian Federation (Gill and Rasier, 2012). Annual interstate mobility is lower in southern EU Member States – only about 0.5 per cent – and higher in France, Ireland, the Netherlands, Sweden and the United Kingdom, around 2 per cent (Bonin et al., 2008). Most migration to EU Member States has been from other European countries. Comparatively, flows and stocks of EaP migration in the EU27 have not been among the larger ones, but we see a steadily increasing trend in EaP migration to Europe during the last decade until the Great Recession. The drop in migration during the Great Recession marks a more general migration trend typical for other migrant groups in and outside of Europe, and given the temporary nature of the cause it is likely to be temporary as well.

To demonstrate the main trends we use a unique dataset compiled by Mariola Pytliková (see Adsera and Pytliková, 2012, Pytliková 2012). Figure 1 describes migrant gross flows in EU countries, by source region. The biggest migration flows come from Europe, followed by Asia and Africa. Figure 2 allows for a closer look at the flows of migrants who originate from Europe. We divide the source countries into five groups: EU15, Iceland, Liechtenstein, Norway and Switzerland as one group (EU15+); EaP countries; EU10; EU2; and other European countries. Figure 2 shows that the highest inflow of immigrants comes from the "old" EEA group of source countries and Switzerland. The inflows are relatively stable over time, whereas the lowest immigration into EU27 destinations stems from the EaP source countries.

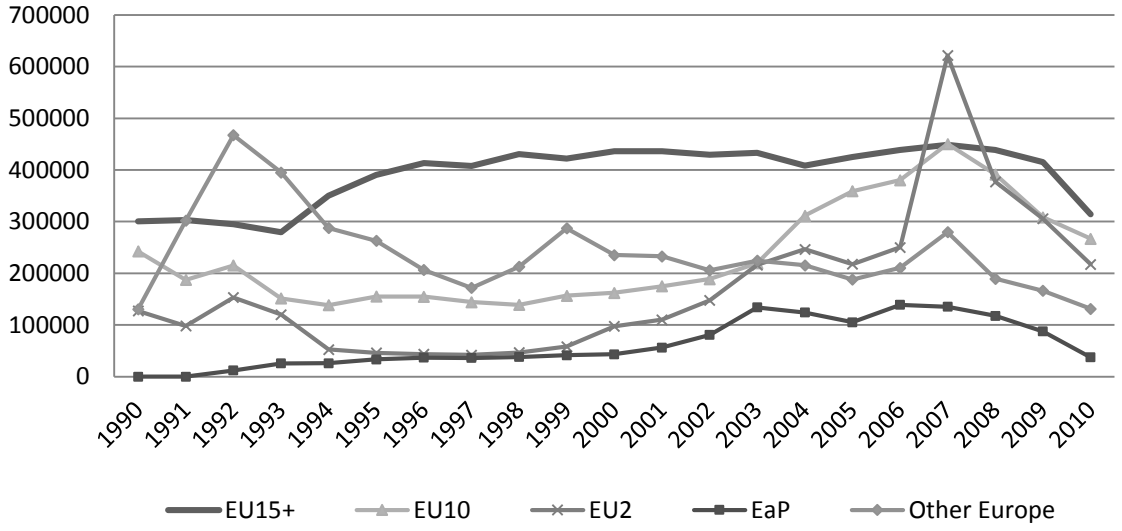
Figure 1: Migration flows to EU27 destination countries by regions of origin, 1990-2010



Source: Gross inflows. Own calculations using migration flows and stock database collected by Pytliková (2012)

Figure 2 also depicts how historical events affected migration flows in Europe. The 1992 peak of migration from "Other European source countries" region corresponds to the development of migration around the fall of the Soviet Union. Also, one can observe a gradual but considerable increase in migration flows for the new EU 2004 entrants after the 2004 EU enlargement. Similarly, migration from Bulgaria and Romania increases sharply around the 2007 EU enlargement.

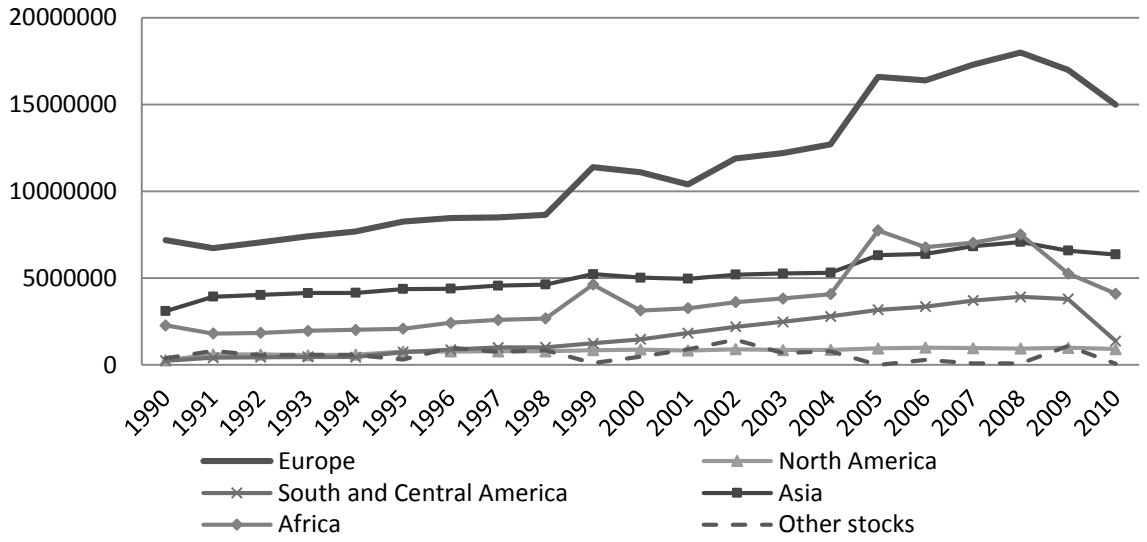
Figure 2: Migration flows to EU27 destination countries from Europe, by European regions of origin, 1990-2010.



Source: Gross inflows. Own calculations using collected migration flows and stock database by Pytliková (2012)

Looking at the evolution of migration stocks, the trends closely follow the development in migration flows. European countries provide the highest number of migrants, followed by Asia and Africa (Figure 3).

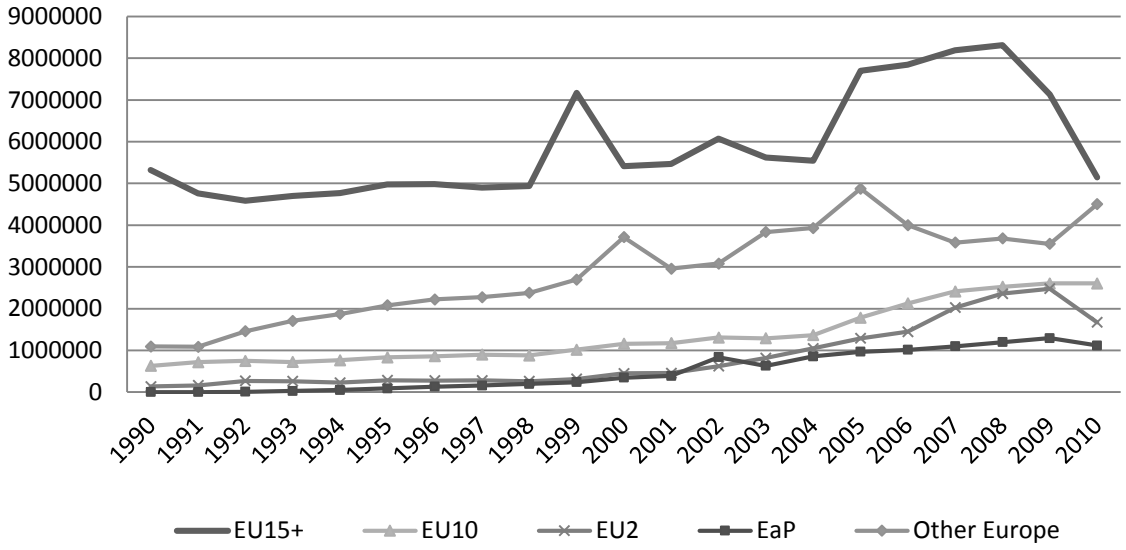
Figure 3: Foreign population stocks living in EU27 destination countries by regions of origin, 1990-2010.



Source: Own calculations using collected migration flows and stock database by Pytliková (2012)

In Figure 4 we disaggregate foreign population stocks stemming from Europe into more detailed regions of origin, similarly to Figure 2. We observe that the highest number of migrants living in EU27 countries come originally from the EU15+, whereas foreigners stemming from the EaP countries have the lowest numbers. Still, in the 2000s we observe an upward trend (until the Great Recession) in migration from the EaP, suggesting more vibrant migration dynamics which may continue after the pause due to the Great Recession.

Figure 4: Foreign population stocks living in the EU27 destination countries from Europe, by European regions of origin, 1990-2010.



Source: Own calculations using collected migration flows and stock database by Pytliková (2012).

Table A.1 in Annex A shows stocks of migrants from EU8, EU2 and EaP countries of origin in European destinations in 1995 and 2010 to provide perspective on changes over time and comparative evaluations of the magnitude of migration from the new Member States and EaP countries. Transitional arrangements applied differently across the EU toward citizens of new Member States, and other factors such as linguistic proximity or labour market performance, resulted in significant variation in terms of the intensity of migration flows across destination countries and in resulting stocks of foreign population. Whereas as of 2010 the main target countries for EU8 citizens were the UK and Germany, relatively few of them live in new Member States and – among the EU15 countries – in Portugal and Greece. Italy and Spain dominated as the most attractive destinations for the EU2 migrants, while the other end of the range consisted mainly of the EU8 countries. EaP migrants predominantly live in Italy and Germany, followed by Poland and the Czech Republic. Countries such as Malta, Finland, Slovenia and the Netherlands are the least popular destinations among the EaP migrants. Compared to other immigrant groups, EaP migrant presence in the new Member States (EU8+2) is currently much larger than in the EU15, but this was already the case in the mid-1990s, pointing to political, economic, cultural or linguistic connections (e.g. within the former Soviet Union) between these regions in the past.

Table A.2 in Annex A shows, that from among the EaP countries, Ukrainian migrants typically constitute the most important migrant group both in absolute numbers and in percentage. In some cases, Belarusian or Moldovan migrants also have a significant share, suggesting that distance from the EU plays a role in migration decisions. Only migration from Belarus declined between 1995 and 2010, which points at a politically restrictive regime and, at least by official statistics, better

economic performance. It could also signal latent migration potential from Belarus should the conditions change.

EaP migrants in the EU form diasporas that facilitate connections with family members and other people in the home country, thereby providing for flow of information and, in particular, for trade, investment and technological connections between sending and receiving countries. The main argument in the literature explaining these positive effects is that diasporas help to overcome informational asymmetries and other barriers. These are also the main channels through which diasporas contribute to development in their home countries, beyond the positive effects of remittances. [2]

EaP Migrant Stock: EU Country Studies

EU country studies generally confirm the data presented above, although exact numbers might differ due differing statistical sources. Drawing on the EU country studies, we are better able to evaluate factors contributing to shifts in EaP migration trends and evaluate the propensity for illegal migration. There is considerable variation in EaP migratory flows across the selected EU countries. Some of the more significant changes to the earlier patterns were induced by the onset of the Great Recession, changes in immigration policy, or the recent European enlargements, sometimes in conjunction with other developments. While the flow of EaP migrants to the five EU countries in some cases mirrors that of other Eastern European countries[3], it also contrasts them sharply in others.

First, the Great Recession had the effect of halting formerly increasing inflows of EaP migrants. At the same time, little or no return migration has occurred as a result of the Great Recession, with the exception of cases where the migration project was most likely envisaged to be temporary from the very beginning (Poland, Italy) or where the existing framework offers a relatively easy re-entry (Poland). In some cases the recession increased competition with the native workforce or other immigrant groups, or revealed a weaker labour market position of EaP migrant workers leading to high unemployment as well as differential gender effect on employment outcomes.

Second, the c*hanges in immigration policy* have in principle resulted in two effects. In Italy and Spain, regularisations resulted in the legalisation of the presence of migrants and in creation of more favourable conditions for their work. Both Poland and the UK implemented new migration frameworks in the latter half of the 2000s. These resulted in favourable and preferential access for EaP migrants to the Polish labour market, but significantly restricted access to the British labour market. In Germany, the Immigration Act of 2005 facilitated the acquisition of residency for highly qualified and self-employed persons, while limiting residence permits for gainful employment to the needs of the German business and local labour market conditions. Descriptive evidence in Constant and Tien (2011) shows that the

[2] See Plaza (2013).
[3] For example. migrants from EU2 or EU8 or specific countries from these groups.

Immigration Act of 2005 appears to be associated with a reduction in the overall number of immigrants being granted a work permit. Such reduction has particularly impacted Ukrainian migrants (6.9 per cent decrease in stock).

Third, the Eastern *EU enlargements* had the effect of changing the balance of competition between workers from new Member States and EaP countries to the detriment of the latter. In the UK and Germany in particular, previous EaP flows were, after the Eastern enlargement, replaced with EU8 and EU2 migrants. Some of the EaP flows have been redirected to the new Member States (e.g. Poland), which have been experiencing labour shortages but which have also made changes to their migration policy frameworks that have re-instituted a more favourable position for EaP migrants (mainly Ukrainians) that had been lost with the entry of EU8 countries to the Schengen agreement.

Illegal migration is generally very difficult to measure. Countries with frequent regularisations are able to estimate irregular migration *ex-post*. Irregular migration into Italy is wide-spread, but originates mostly in sub-Saharan Africa. From the EaP countries, Ukrainian irregular migrants are estimated at 28,000 (6.7 per cent of all irregular migrants) and Moldovans at 17,000 (4.1 per cent of all irregular migrants) (Marchetti, Piazzalunga and Venturini, 2013). Illegal immigration into Spain is considered frequent due to government's low capacity to manage the flows. Precise numbers, however, are unavailable (Farré and Rodríguez-Planas, 2013). In Poland illegal migration is very small in absolute numbers, but on average more present in sectors such as household services, trade and transport. Being employed in construction, agriculture and other services increases the probability of legal employment. This has been linked to the recently introduced measures targeting workers in such sectors as agriculture and construction which have been successful in redirecting EaP migrants into legal employment and payment of tax contributions (Duszczyk, Góra and Kaczmarczyk, 2013). In the UK, most migrants are expected to be failed asylum seekers rather than overstayers or illegal entrants; for this reason, the total number of illegal EaP migrants is likely to be very low, but estimates based on the country of origin are not available (Clark and Drinkwater, 2013). Estimates of irregular migration into Germany could not be generated on the basis of available data sources (Biavaschi and Zimmermann, 2013).

4.2. Migrant profiles

EaP migrants are rather well educated, often exceeding the education attainment levels of natives and other immigrants.

Most EaP migration appears temporary and it is gendered along sectors of employment.

In spite of their relatively high level of educational attainment, EaP migrants predominantly find employment in low-skilled and unskilled sectors.

Downskilling of EaP migrants is a function of various factors, ranging from institutional barriers (recognition of qualifications) to migrants' preferences.

There are distinct patterns describing EaP migrants in the EU emanating from the country studies, which we summarise in Table 3. Some particularly important general characteristics of EaP migration are the distinctly gendered composition and the very poor skill-job match. Male and female EaP migrants find employment in different sectors in which they are then rather concentrated. Male EaP migrants find employment predominantly in construction or agriculture, while female EaP migrants find employment mainly in the domestic care and service sector. Positioning in low-skilled sectors implies low average earnings and higher labour market vulnerability. Migrants from EaP countries typically belong to the younger and better educated of all groups relative to both natives and other immigrant groups, yet encounter difficulties in labour market integration and skill recognition, as well as low prospects to catch up with other immigrant groups or natives. The situation is different for female EaP migrants who work in the domestic care sector – they are typically older than their colleagues in the other sectors. EaP migrants also often constitute the group of immigrants that has arrived more recently, and their migration patterns with respect to destinations within the receiving countries reveal the influence of migrant networks.

Table 3: Overview of EaP migrant profiles based on country studies

		UK	Spain	Poland	Germany	Italy
Education	Primary-Low	18.7*	8/9**	n.a.	20*	7.2*
	Secondary-Medium	14.7	34/44**	n.a.	31	69.1
	Tertiary-High	53.5	45/37**	25.9*	44	23.7
	In Education	12.1	n.a.	18	20	n.a.
Age	Average Age	n.a.	37	n.a.	44*	n.a.
	Age Groups	36.4*	n.a.		n.a.	13
	(see notes Table A.3 Annex A.3)	44.5		53.3*		14
		12.9				21.5
		5.1				29.5
		1		1.4		21.5
Gender	Female	59.0	56	57.7*	61*	67
	Male	41	44	42.3	39	23
Occupation	Low Skilled-Unskilled	47.1*	90/94**	24.2*	25*	96.5*
	Medium Skilled	31.2	6.3	35.8	41	2.5
	High Skilled	21.7	4.3	1.4	34	0.9
Economic Activity	Employed	67.8*	63/78**	87.5*	31*	76/72* **
	Unemployed	7.8	n.a	n.a.	16	7.8
	Inactive	24.4	n.a.	n.a.	n.a.	19/22**
Sectoral Allocation *(see notes Table A.3 Annex A.3)*	Manufacturing-Production	13.7*	0/10.24**	9.1*	16*	3.9/23.3* **
	Construction	6.5	0/42.19**	29.6	3	0/28.3**
	Retail-Hospitality	28.8	23.73/2.88**	2.3	17	8.7/10**
	Transport-Communications	2.9	n.a.	6.9	7	0.4/8.3**
	Business Services-Finances	24.5	n.a.	6.8	18[ij]	0/0**
	Public Services	15.8	n.a.	n.a.	33	0/0**
	Domestic Services	n.a.	56.23/2.56**	20.5		72.1/8.3**
	Agriculture	n.a.	3.71/4.15**	6.3	1	2.4/6.7**
	Other Services	7.9	4.71/1.58**	n.a.	n.a.	n.a.

Notes: In per cent of the respective population. * Refers to Ukrainian migrants only. ** Female/male. See Table A.3 in Annex A for extensive details.
Sources: Country studies: Biavaschi and Zimmermann, 2013; Clark and Drinkwater, 2013; Duszczyk, Góra and Kaczmarczyk, 2013; Farré and Rodríguez-Planas, 2013; and Marchetti, Piazzalunga and Venturini, 2013

Within the IZA Expert Opinion Survey 2012 expert stakeholders were asked to evaluate the nature of migration from EaP countries (Table 4). In comparison to other third-country immigrants, EaP migration is viewed as less permanent. While

more than a third of experts evaluated EaP migration as irregular, about two thirds considered the flows as prevalently legal. The most important reason for EaP migration is labour motive. Compared to other non-EU migrants and intra-EU mobility, student migration is less prevalent. Generally, non-EU migrants are seen as having irregular status more frequently than EU migrants.

Table 3: Prevalent nature of migration

	Temporal nature			Legal aspect		Reasons for migrating		
	Permanent	Temporary or circular	Seasonal	Irregular	Regular	Work	Family	Study
Non-EU	63%	61%	17%	35%	81%	81%	55%	47%
EaP	47%	49%	18%	36%	66%	71%	30%	19%
EU15	57%	65%	11%	2%	82%	77%	30%	49%
EU12	61%	64%	30%	11%	84%	87%	37%	36%

Source: Own calculations based on IZA Expert Opinion Survey 2012. Respondents were asked "What is the prevalent nature of migration to your country?" Multiple responses were possible; percentages do not need to sum up to 100. N= 83.

The country case studies also provide specific lessons about particular countries. According to the UK country study (Clark and Drinkwater, 2013), EaP migrants in the UK are relatively young and well-educated compared to natives and other immigrant groups. Data sources suggest a feminisation of migration flows to the UK. EaP migrants find employment mainly in the retail and hospitality sector (but also in the business and finance sector) implying a mismatch between employment and their actual relatively high skill level as measured by educational attainment. Additionally, their employment rates are lower than those of other European migrants for both genders. EaP migrants concentrate in London, for its economic status and social networks.

EaP migrants in Spain are younger on average than the native population and also considerably better educated (Spanish country study, Farré and Rodríguez-Planas, 2013). They work mainly in the domestic and construction sector. Female EaP migrants are much more likely to be employed than their native counterparts. Their high level of education does not match their employment in low-skilled occupations. Labour market integration is partial, yet they have the potential of catching-up to other immigrant groups and natives and eventually surpassing them. Migrant networks are influential when it comes to the location of EaP migrants in Spain. EaP migrants represent the most recent immigration wave in Spain, which due to the need of adjustment may partly explain their worse employment outcomes. Another factor is their higher concentration in sectors more significantly affected by the crisis.

According to the Polish country study (Duszczyk, Góra and Kaczmarczyk, 2013), EaP migrants in Poland are mainly employed in low-skilled occupations (construction, agriculture and domestic sectors). A considerable share also immigrates via the study

route rather than through employment. As a result of temporary employment frameworks, EaP labour migrants stay mostly between 3 and 12 months. Yet a clear distinction can be made between predominantly female EaP migrant workers staying longer than 6 months (domestic sector), and mainly male EaP migrant workers staying up to 6 months (construction, primary sector employment). Their level of education is higher than that of natives and they are younger on average than the native population. EaP migration to Poland (especially from Ukraine) has consistently been high, and is driven by long-standing migrant networks and relations.

EaP migrants enter Germany for study, work or family reasons (German country study, Biavaschi and Zimmermann, 2013). EaP immigration has become a female phenomenon since the 1990s. While Ukrainian immigrants are largely the same age as the native population, other EaP migrants are younger. EaP migrants are better educated than natives or other migrant groups, yet experience difficulties in labour market integration. Their employment rates are below those of natives and they do not catch up with time. Their length of stay in Germany is shorter (though increasing) than that of other immigrant groups and their numbers levelled off around the mid-2000s. They are mostly employed in low-skilled sectors (hotel & food services, domestic sector), exhibiting the widest skill-job mismatch in comparison to all other migrant groups.

EaP migration to Italy is structured around two different patterns: an older, female immigration flow from Ukraine, and a male-dominated and younger immigration flow from Moldova (Italy country study, Venturini, Piazzalunga, and Marchetti, 2013). They signify a temporary and a more permanent migration plan, respectively. Overall, females are more frequent among EaP migrants in Italy. EaP migrants show very high and gendered employment rates, mainly in construction and the domestic sector. They are also among the best educated of all immigrant groups, yet their skill-job match is very poor with little prospect for improvement.

In sum, in all studied countries the EaP migrants were found to be rather well educated, often exceeding the education attainment levels of natives and other immigrants. Moreover, a larger share of migrants have technical and engineering degrees (Duszczyk, Góra and Kaczmarczyk, 2013, Biavaschi and Zimmermann, 2013). In spite of high level of educational attainment, a large majority of EaP migrants find employment in low-skilled and unskilled sectors, such as agriculture, construction and domestic and care services. There is a small proportion of EaP migrants who work in highly skilled sectors (e.g. financial services in the UK, IT industry in Poland). The allocation of EaP migrants is gendered across sectors of employment. Especially in Italy, Spain and Germany, Ukrainian migration is female-dominated (domestic care sector). Male migrants from the EaP countries typically find jobs in the construction sector or in agriculture, which have a more seasonal character. Many migrants also work in trade and services. The importance of migrant networks should not be neglected; a possible pitfall of migrant networks is the resulting concentration of EaP migrants in certain regions possibly resulting in skill mismatches (Duszczyk, Góra and Kaczmarczyk, 2013).

Downskilling

The studies jointly revealed that EaP migrants are typically not well-matched with respect to the level of formal education they attained at home. Key factors that have been proposed in country case studies to explain down-skilling in the country studies related to different dimensions.

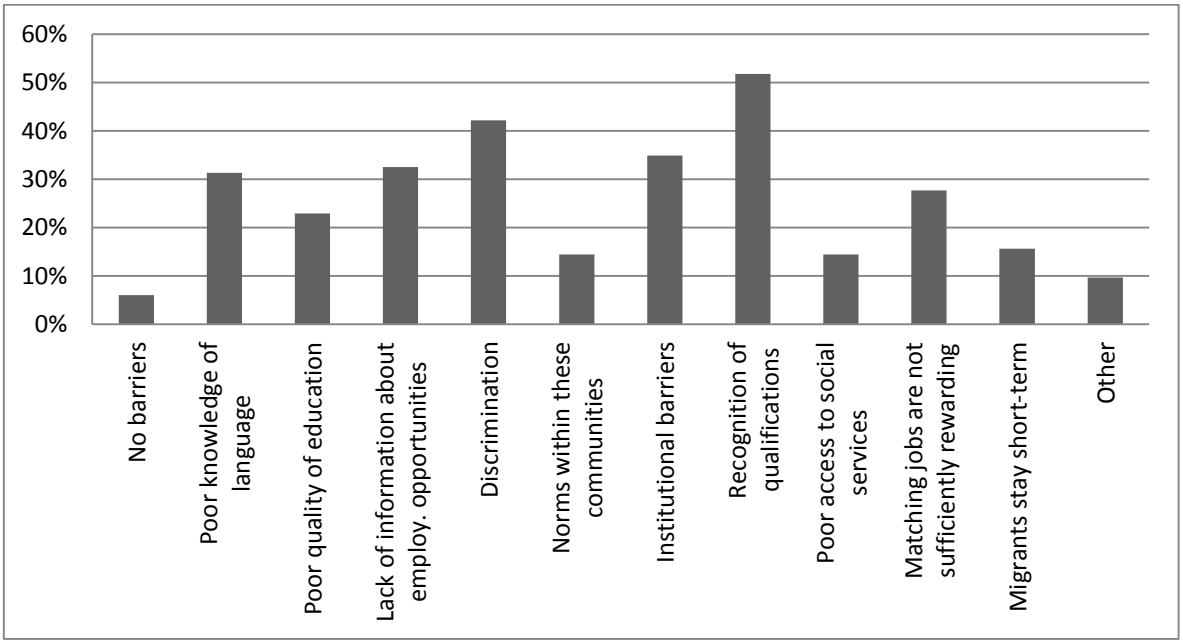
First, labour market positioning of EaP migrants is structured by the type of demand in these countries and existing labour market segmentation, which might be further reinforced by sufficient supply of immigrant labour. The second factor relates to migrant strategies. If the migration project is temporary, migrants accept less skilled positions more readily and might not strive for improved conditions, as the investment in country-specific skills (e.g. language) required for climbing up the occupational or social ladder may have low returns on investment (e.g. in terms of increased wages or employment chances over a time horizon of limited duration). Third, measured down-skilling might rather be a measure of the short stay in the receiving countries. The country studies have demonstrated that EaP migrant groups belong to the most recent arrivals, while labour market integration and skill upgrading typically requires time. As "late arrivals" they have had little time to adjust in the domestic labour market and move into higher positions more appropriate to their skills.

The fourth aspect relates to institutional barriers embodied in difficulties in the process of recognition of qualifications or restrictions on transition to other jobs. Recognition of qualifications plays a particularly important place in German migration policy, making the immigration procedure lengthy and costly. In Germany, several initiatives to improve the situation have been implemented in the past few years, including the new Federal Law on Recognition of Foreign Qualifications. However, the process remains cumbersome, expensive and complicated, as the fees vary by Federal States (IOM, 2013b). This might be creating barriers for better skilled migrants in particular, possibly redirecting them to countries with more favourable frameworks. Recognition of foreign qualification is important not only from the perspective of matching, but also with respect to migrant employability (IOM, 2013b). Self-employment is, in some countries, a way of entering the domestic labour market, while this does not seem to be the case in others. In addition, if migration policy is temporary by design, a possibility of transition into higher positions from low-skilled jobs is often not legally possible.

While the temporality of stay might have detrimental effects on wage and employment development of EaP migrants, temporary arrangements appear to be preferred by most EaP migrants. The appeal of such migration plans may be due to their less restrictive regulation and better predictability, compared to uncertain and administratively burdensome long-term prospects regarding acquisition of permanent residence and work permits or ascension to citizenship.

The 2012 IZA Expert Opinion Survey provides additional insights into the key factors contributing to mismatch between relatively high formal qualifications of migrants and their low-skilled jobs. Expert stakeholders identified difficulties in recognition of qualifications (52%), discriminatory attitudes (42%) and institutional barriers in legal framework (35%) as the key factors explaining downskilling of migrants in their respective countries (Figure 5). A third of experts considered also poor access to information about the employment opportunities and insufficient knowledge of the official language as factors leading to downskilling.

Figure 5: Factors of immigrant downskilling



Source: Own calculations based on IZA Expert Opinion Survey 2012. Respondents were asked "Immigrants in the EU are known to often work in occupations that are below their level of formal qualification. Which of the following barriers do you think best explain this phenomenon in your country?" Multiple responses were possible; percentages do not sum up to 100. N= 83.

5. EU labour market needs

The European Union need immigrants – high-skilled but also low-skilled.

Labour shortages were high among skilled-manual occupations in the agricultural, health and education sectors over the late 2010s. At the same time skilled non-manual occupations in the agriculture and construction sectors experienced the largest decline in labour shortage

In the medium term (until 2020), shortages are expected for health professionals, IT staff, engineers, sales representatives, and accounting and finance staff, as well as in sales, services and elementary occupations.

Due to its aging populations and in view of structural changes and shifts, Europe is likely to need immigrant labour to fill in replacement jobs and newly emerging jobs. The structure of future demand is expected to be varied and include highly-skilled as well as low-skilled jobs. According to a survey conducted in 2009 by Kahanec and Zimmermann (2011), 87.3 per cent of labour market experts indicate that the EU needs at least as many immigrants as it has now, and 56.6 per cent believe that compared to the current situation the EU needs more or many more immigrants. This conviction is even stronger for high-skilled immigrants (the corresponding figures are 96.1 and 81.2 per cent) and somewhat weaker for low-skilled immigrants (the corresponding figures are 58.1 and 25.8 per cent). The surveyed experts foresee inflows dominated by low-skilled immigrants, although the survey indicates that the supply of and demand for high-skilled workers is going to be less negatively affected by the Great Recession than in the case of their less-skilled colleagues.

An analysis of current labour market situations, the European Vacancy Monitor, conducted in 2012 identified top bottleneck occupations in the following medium- to high-skilled occupations: health professionals, IT staff, engineers, sales representatives, and accounting and finance staff (EC and ECORYS, 2012).

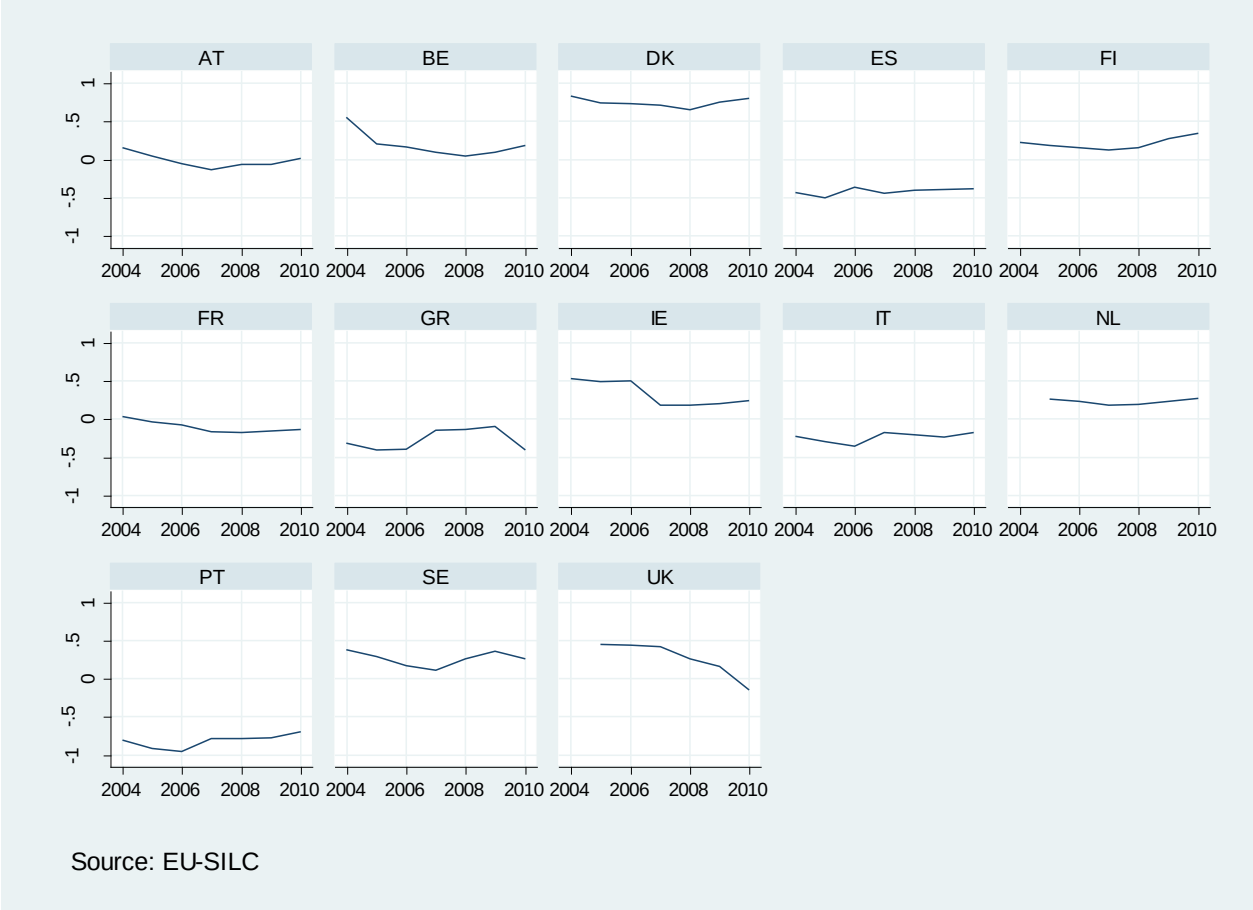
We have conducted our own analysis to estimate labour shortages in the EU in the recent past. In Guzi, Kahanec and Kureková (2013), movements of residual wages calculated using EU LFS and EU SILC data have been used as a measure of labour shortages under the assumption that an upward movement of wages signifies, *ceteris paribus*, a tightening of the labour market and therefore increasing skill shortages. In particular, the methodology of measuring labour shortage is inspired by Borjas (2001), whereby labour shortage is measured by average residual wage in the given country, industry, and occupation after controlling for the composition of the labour force in so defined group. Comparison of this wage residual across countries, industries and occupations permits evaluation of the extent of wage dispersion net of labour force composition.[4] Labour shortage is evaluated in relative terms by

[4] Differences in the cost of living are not accounted for.

contrasting the situation in each country, industry and occupation to the European Union mean in the particular year.

Figure 6 depicts the average wage premiums in European countries during the 2000s. It can be observed that workers in Austria are paid wages that are, net of the differences in the characteristics and distribution of labour force, close to the European average. Among the countries with relatively low wage premium are Greece, Italy, Portugal and Spain; on the other hand in Denmark and Sweden, and initially also in Ireland and the United Kingdom, wage premiums were well above the EU average. In some countries the wage premium decreased over time (e.g. France, Ireland, United Kingdom) while it has increased in others (e.g. Finland). Non-monotonic development is observed in yet other countries (e.g. Denmark, Greece, Italy, and Sweden). It is exactly this variation that is indicative about the existence of labour shortages. The analysis in Guzi, Kahanec and Kureková (2013) identifies that the labour shortage in the European countries remained high among skilled-manual occupations in agriculture and the health and education sectors over the studied period. At the same time skilled non-manual occupations in the agriculture and construction sectors experienced the largest decline in labour shortage.

Figure 6: Wage premiums in the EU countries, 2004-2010

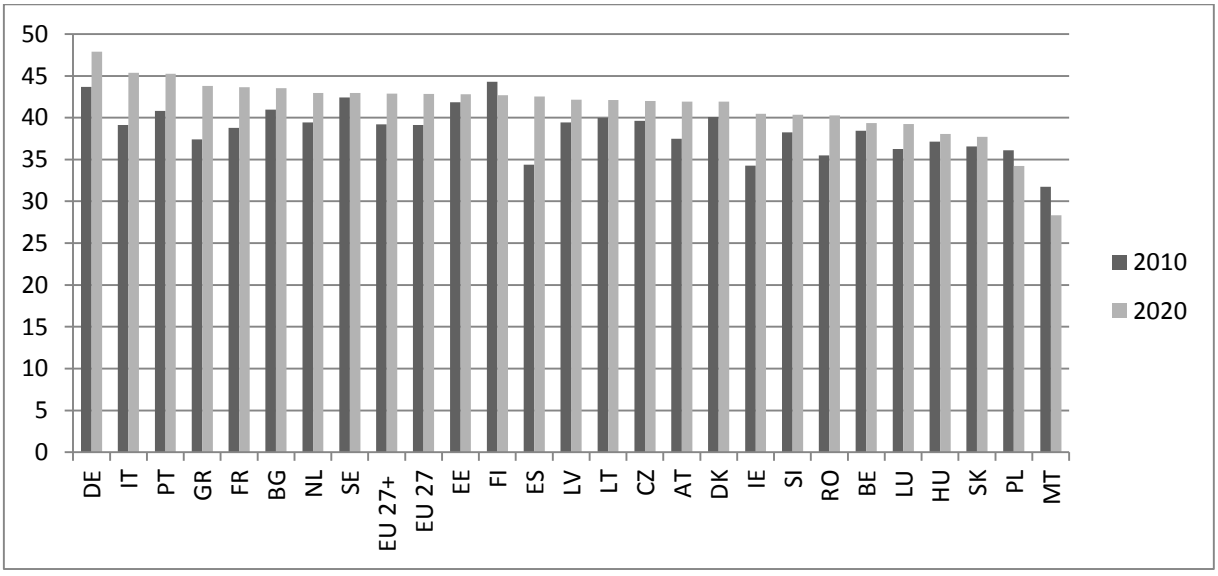


Source: Adapted from Guzi, Kahanec and Kureková (2013)
Note: The figures represent average residual wages in the given country, industry, and occupation after controlling for the composition of the labour force. It is estimated from log-wage regressions based on yearly samples.

CEDEFOP (2012) in its analysis aimed at predicting skill needs in Europe in the upcoming decade estimated that more than 8 million additional jobs are to be created by 2020. Another 75 million jobs will emerge in this period as "replacement jobs" to fill in vacancies emerging after workers take up retirement or leave the labour market for other reasons. The high share of replacement job opportunities reflects the aging work force in Europe. In 2010, the share of the labour force aged over 45 already stood at an average of almost 40% (Figure 7). The CEDEFOP forecast estimated a further growth over the next decade in the share of national workforce aged over 45 years in the great majority of EU countries with more pronounced labour force aging problems in some of the largest EU countries and economies: Germany, France, Italy, or Romania (Figure 7).

In fact, despite the variation in the level of the labour force share and projected old-age dependency ratios across the Member States, the potentials for intra-EU mobility are dramatically hampered by the concurrent decline in the share of young, mobile European workers (Bonin et al, 2008). In fact, the share of the 20-29 population within the total population is expected to decrease by almost 20% by 2020 and converge across Member States (Bonin et al., 2008), with the sharpest reduction in Eastern Europe. The authors claim that trends cannot be tackled without immigration from outside the EU and they therefore call for pro-active measures to strengthen migration and mobility frameworks.

Figure 7: Share of labour force aged over 45 by country, 2010 and 2020



Note: Per cent. Countries are sorted by the highest share of aged labour force in 2020. The figures for 2020 represent projections.
Source: CEDEFOP, 2012

CEDEFOP (2012) estimates that in total over 83 million jobs will need to be filled by 2020, most of which will be at the higher or lower end of the skills spectrum, leading to a risk of job polarisation. CEDEFOP anticipates there will be job opportunities in manufacturing, crafts and agriculture due to replacement demand, but most job

openings will be in services. Traditional manual and routine jobs are on decline, and due to weak expected employment growth in the next decade, the supply of people with high-level qualifications will exceed demand, leading to short-term over-qualification. Services including tourism, health care and IT are expected to generate most job growth in the years up to 2020, but at a slower rate than anticipated earlier due to crisis-related austerity measures.

In spite of relatively high unemployment levels, shortages will also appear. Shortages are likely to exist under the forecast assumption of 75% level employment rate, which is the EU 2020 employment target. Shortages are in part a result of inefficiencies in job matching at the micro-level but also reflect insufficient skill mix or skill deficiencies not reflected in formal education levels. Notably, CEDEFOP (2012, p. 13) expects the greatest recruitment difficulties in sales, services and elementary occupations (ISCO 91). [5] Sales, services and elementary occupations belong to the 'top five occupations' most in demand up to 2020, where over 7 million (new and replacement) jobs likely are to be created. Importantly for this report, a factor likely to contribute to a shortage in these occupations is the quality of working conditions and pay levels, which might not be sufficiently attractive to national workers (CEDEFOP 2012). These positions have traditionally been filled by migrant workers. Other occupations projected to be most in demand in the medium term (until 2020) are high-skilled corporate managers (ISCO 12), professionals (ISCO 24 and 34), and personal and protective service workers (ISCO 51) (CEDEFOP 2012, p.10). These require a more educated workforce and are expected to create about 26 million jobs (most of which will be replacement demand).

[5] The projections are based on the assumption that the mix of qualifications (share of high, medium and low qualified workers) in the occupation will remain stable. Based on forecasting results this mix is more likely to remain stable in higher-level occupations (such as associate professionals) than in lower ones (such as plant and machine operators). (CEDEFOP 2012, p.13)

6. Relevance of EaP migrant profiles for the EU labour needs

EaP migrants have been filling existing gaps in host countries' labour markets.

Due to a relatively small number of EaP migrants in the EU such positive effects have been in aggregate limited.

Immigrants generally provide for a more efficient allocation of workers. For instance, they enable native households to engage in market employment by providing substitute domestic care.

While the EaP Synthesis Report (Barbone, Bonch-Osmolovskiy and Luecke, 2013) highlights demographic limitations that EaP countries themselves might be facing in the future, the EU country studies document that the profiles of EaP migrants are well suited and relevant for current and future EU labour market needs. Our in-depth analysis points out that particular needs across the EU are diverse. The findings from the country studies suggest that skill demand structure and shortages vary widely across the EU countries, as a result of different economic structures, demographic curves or the impact of the EU enlargement and economic crisis.[6] The consensus arising in the country studies is that EaP migrants have been filling the existing gaps in host countries' labour markets, and thus their economic impact is generally positive. Due to a relatively small number of EaP migrants in the EU to date, however, the aggregate impact on host countries' labour markets is limited. In Table 5. below we synthesise the current and future labour market demand as evidenced in the five country studies and expert evaluations of the degree to which EaP migrants can match the future needs.

The country studies identified that the EaP migrants have been filling the current gaps in the host countries' labour markets in sectors such as agriculture (Poland), household services and personal care (Spain, Italy, Germany), construction (Poland, Italy) or retail and hospitality (UK, Germany) (see again Table 3). Especially in Italy and Spain, EaP migrants have played an important positive role in filling demand in the 'shortage' sectors in social and care services. Moreover, the EaP migrants complement natives in employment and have contributed to female labour market participation in Italy and Spain.

The role that female labour migrants have played in low and medium-skilled domestic care services should be particularly highlighted. While the over-qualification of these migrant women remains a concern, their contribution to the host country labour market has been significant both through direct micro-level impacts as well as by enabling the national female labour force to participate in

[6] Biavaschi and Zimmermann, 2013; Clark and Drinkwater, 2013; Kaczmarczyk, Gora and Duszczyk, 2013; Farré and Rodríguez-Planas, 2013; and Marchetti, Piazzalunga and Venturini, 2013; see also CEDEFOP 2012.

market employment. The demand in this sector appears to be robust even during the crisis, which has been evidenced by the fact that female EaP migration has remained stable over the past few years. A further shift towards the service sector in some EU labour markets might further increase the need for female (EaP) immigration to fill these types of labour market shortages and gaps, which are likely to grow further in view of EU's aging populations. On the other hand, EaP migrants are generally well-educated and thus well suited to fill in shortages in the high-skilled sectors identified by forecasting studies (CEDEFOP 2008, 2012). Efforts need to be increased to ensure their matching to high-skilled job openings in specific sectors, where they may be most needed.

Table 4: Labour needs in five case countries and potential for EaP matching

Country	Labour Market Needs	Potential EaP Migration Matching
UK	**Current** - 34 occupations figure on the "shortage occupation list" of which 16 require an education in the STEM subjects - there is a focus on attracting high-skilled non-EEA migrants to the UK - migrants might also offer particular soft skills (linguistic and cultural skills)	- EaP migrants are not regarded as matching shortage occupations identified by MAC, but mostly due to downskilling
	Future - the UK does not produce enough graduates in the STEM subjects	- future opportunities for EaP migration to the UK lie where a strategic or sectoral shortage of skill has been identified by MAC
Spain	**Current** - a "difficult to cover occupations"-list is published quarterly - vacancies are in the fishing and the naval sector - prior to 2008 – vacancies in construction and restoration sector	- candidates with technical degrees and for the care sector are in the focus
	Future - many skilled natives (e.g. engineers, business men, architects) have left or are leaving the country and are not likely to return - skilled immigrants are regarded as "good candidates" to cover the resulting vacancies - additionally, there will be an increase in demand for elderly care service	- EaP migrants are regarded as "good candidates" to cover future labour market demands

Poland	**Current**	
	- employment of immigrant workers mainly in managerial and professional positions (employment based on specific skills)	- Ukrainian immigrants play an important role in industry and services
	- deficit profession are industry manual workers and craftsmen (2007-2011)	- EaP immigrants are relevant in the 'secondary labour market'
	Future	
	- medium & large firms display a potentially higher demand for foreign labour (in sectors such as industry & mining, or construction)	- most intense inflows are expected from Ukraine and Belarus
	- demand is also predicted for the agricultural sector (seasonal) and services sector	- language similarities facilitate EaP migrant employment, e.g. in the household/service sector
Germany	**Current**	
	- high skilled and skilled workers	- current matching has not been good due to poor recognition of qualifications and poor selection
	Future	
	- shortage of graduates and individuals with vocational training by 2020 - engineering, health care, legal, management and business administration, and science occupations are expected to experience shortages	- EaP migration is desirable for two reasons: 1.) it is seen to help to alleviate future demographic problems, and 2.) EaP migrants, especially females, have favourable degrees in STEM and engineering, more-so than other migrant groups
Italy	**Current**	
	- demand for unskilled workers	
	- demand across all sectors (construction, or services, e.g. tourism, restaurants & hotel sector, health, social services, private health sector)	- current employment in family sector (female) and construction (male)
	Future	
	- demand for unskilled workers will continue – construction, health and social services	- there is a lack of estimates for the household sector, the most important sector currently for female EaP migrants

Source; Authors' elaboration based on EU country studies: Biavaschi and Zimmermann, 2013; Clark and Drinkwater, 2013; Duszczyk, Góra and Kaczmarczyk, 2013; Farré and Rodríguez-Planas, 2013; and Marchetti, Piazzalunga and Venturini, 2013.

7. Costs and benefits of migration

In this section we turn to costs and benefits of labour mobility between the EaP countries and the European Union. To measure and evaluate these costs and benefits, we adopt a cross-cutting triangulation approach applying a range of methodologies and using a number of primary and secondary data. To this end we first extrapolate a number of lessons from recent migration flows including those related to EU's Eastern enlargements. We then turn to a quantitative statistical evaluation based on a unique dataset of costs and benefits of recent migration from the EaP, EU8 and EU2 on key economic variables in the EU: GDP per capita, total GDP, employment rate, capital stock, total factor productivity, capital to labour ratio, and output per worker. Third, we use a dataset compiled for this purpose and advanced econometric methods to evaluate the degree to which migrants grease the wheels of EU's economy by allocating to sectors where labour shortages arise. Fourth, we review two micro-level qualitative case studies of migrants from EaP to the EU in order to inform us about how costs and benefits of (temporary) mobility are shared and dealt with within migrants' households. In this section we also review the observed shortages. Fifth, we look at the role of labour market institutions and industrial relations for the costs and benefits of labour mobility.

7.1. EU Eastern enlargement: experience and lessons

The main lessons from European Union's eastern enlargements are:

- *Liberalisation of entry and access to the labour market leads to increase in migration flows.*
- *Transitional arrangements divert migration flows quantitatively and qualitatively; even countries applying such arrangements witnessed increased flows, however.*
- *Post-enlargement migrants are relatively well educated, and actively participate in the labour market.*
- *There is a degree of downgrading into lower-skilled occupations. This may signify brain waste, but it may also be part of an optimal migration strategy, lead to a more efficient utilisation of labour force, and be just a temporary phenomenon.*
- *Except for micro-level substitution effects in some local labour markets, the aggregate effects of post-enlargement migration are relatively small, and positive if present.*
- *Intra-EU migrants do not abuse or shop for welfare, they rather lack adequate access to welfare.*
- *Outflows of skilled workers pose a challenge for sending countries, but brain circulation provides for convergence and prosperity. Remittances compensate some of the short-term costs.*

European Union's eastern enlargement of 2004 and 2007 offers insightful lessons about the consequences of liberalisation of mobility for migration flows and their effects in receiving and sending countries.[7] From a number of perspectives, EU Eastern enlargement represents a good benchmark for evaluating expected flows, migrant composition and possible effects in light of more liberal migration framework between the EU and EaP countries. While the development in Eastern European new member states and the EaP region has diverged since the regime change in 1989, the regions share some general similarities with respect to education structure of national populations and demographic trends as populations across the former Eastern bloc countries have been stagnating or falling in numbers and are projected to age.

Flows

EU Eastern enlargement in 2004 and 2007 increased intra-EU labour mobility. Transitional arrangement applied by most EU15 states had important implications on directionality of post-accession flows, which were not massive, but sizeable. Based on data collected by Holland et al. (2011),[8] we can estimate that between 2004 and 2009, the total number of EU8 and EU2 citizens in EU15 countries rose by about 150%: whereas in 2004 there were about a million citizens from the EU8, and almost another million EU2 nationals, by 2009 the total number of EU8 and EU2 citizens reached almost five million. When measured as a share of respective populations, EU8 and EU2 migrants in EU15 combined equalled about 1.22% of the total EU15 population and 4.75% of combined populations of EU8 and EU2 countries in 2009.[9]

EU8 citizens reacted to enlargement with some delay, with peak migration level only in 2006 and 2007, two years after their accession and at a point when their economies were performing well and grew at high rates. This maps the experience from the migration literature that migrants move after they have gathered relevant

[7] For a comprehensive account of EU's Eastern enlargements see Kahanec and Zimmermann (2010) and Kahanec (2013).

[8] While this dataset provides probably the most comprehensive account of migration flows between the new and old member states known to us, it has to be acknowledged that a number of issues arise with it. These mainly arise because of the lack of adequate infrastructure to collect data enabling us to measure migration flows in the EU. For example, data is often based on population statistics by citizenship, and changes in respective stocks are interpreted as migration flows. Deaths and births, legalizations, as well as citizenship acquisition, are included in these flows, although they should not be interpreted as migration. Latvia and Estonia are especially problematic in this respect, as these countries host large populations of non-citizens, who are treated in various destination countries in different ways. Data from Ireland and the UK are similarly problematic, as they are based on interpolations from the respective labor force surveys rather than large-scale administrative or census data, which may have large error especially for evaluating the sizes of populations originating from smaller source countries. Looking at foreign-born populations does not help to solve all these issues; for example, many migrants from the Baltic states were born in other republics of the Soviet Union. Various registers have their own problems, as migrants often fail to deregister. The statistics that we discuss below may therefore over- or under-represent true migration flows and need to be interpreted with these caveats in mind.

[9] For 2007 these figures are slightly higher than those reported by Brücker and Damelang (2009) or Brücker et al. (2009), and in the range of those provided by European Commission (2008a, b).

information and accumulated the economic means to do it. The response of EU2 citizens was considerably swifter and more pronounced, reaching peak migration flows already in the year of enlargement.[10] The Great Recession affected also intra-EU labour mobility by incentivising return migration and by discouraging migration propensity of new migrants. In spite of relatively similar income differentials with EU15, emigration rates from the EU8 and EU2 sending countries have been quite diverse. While the Czech Republic, Hungary and Slovenia sent below 2% of their populations, close to 6% of Lithuanian and Bulgarian citizens had worked in EU15 at peak times, and so did as much as 10% of Romanian citizens (Holland *et al.* 2011). This diversity has been attributed to different labour market conditions and welfare system structures in home countries which have interacted to shape the propensity to migrate or to stay (Kureková, 2011).

Post-enlargement migration was characterised by geographic diversion of migration flows. For EU8 citizens the relative importance of the UK, Ireland and also Spain as host countries increased substantially, while the traditional host countries, Germany and Austria, lost their share quite dramatically. For EU2 citizens the shares of Spain and Italy increased steeply, at the expense of mainly Germany, but also Austria and France. This diversion is partly a result of transitional arrangements. While delayed liberalisation of labour market access in some EU15 countries diverted some migrants elsewhere, it did not prevent their EU8 populations from growing.

Skill composition, occupational and sectoral profiles

In addition to increased flows, EU accession led to a generally positive shift in migrant profiles. Using the 2009 EU Labour Force Survey[11] we found that with enlargement the share of EU10 migrants with high educational attainment residing in the EU15 increased substantially (Figure 8).[12],[13] The fact that the share of highly educated EU10 migrants increased already in 2003 might indicate that even the prospect of EU accession already attracted many educated EU10 citizens. In 2007 and 2009 we however observe somewhat higher shares of low educated EU10 migrants. This is consistent with the findings in the literature that the proportion of

[10] That the 2004 accession took place on May 1, whereas in 2007 it was January 1, can at best only partly explain this difference in response.

[11] We reconstruct immigrant cohorts using the year of arrival for residents born in the EU10 and EU2. We consider the population above and including 16 years of age, excluding conscripts on compulsory military or community service as well as anyone whose highest level of education or training successfully completed was attained after his or her immigration to the current country of residence in the EU15.

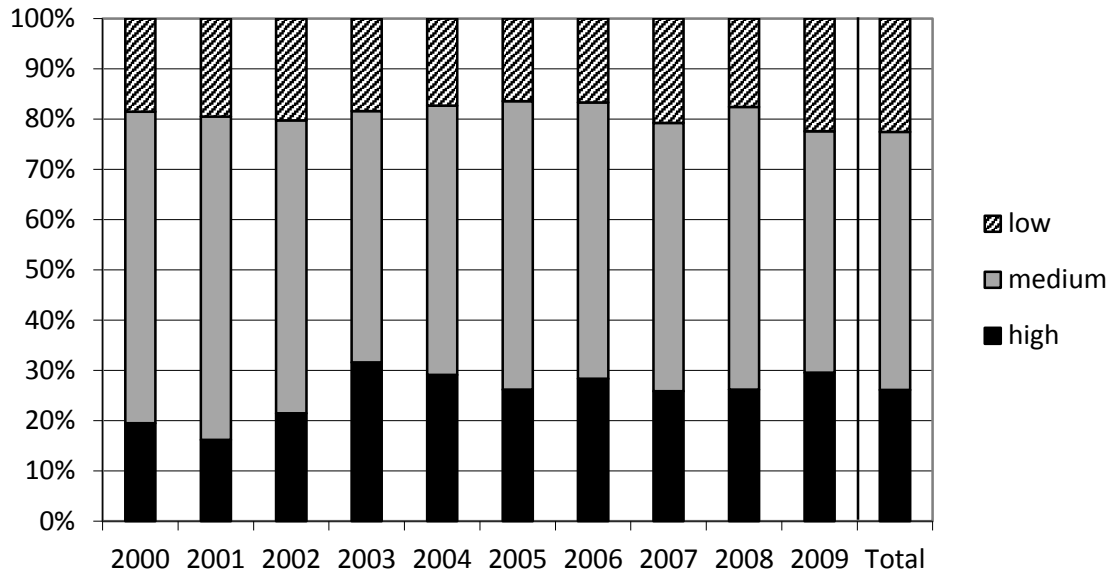
[12] High level of education includes ISCED 5 and 6 levels; medium level of education comprises ISCED 3 and 4 levels; and low level of education takes in ISCED 0, 1 and 2 levels. For further details about this classification see UNESCO (1997).

[13] Given the construction of the sample, were the propensity to stay in the host country positively correlated with a migrant's educational attainment (Hazans (2012) shows this to be the case for the Baltic states before enlargement as well as since 2006), our results would underreport the true improvement in the skill composition of immigrants from the new member states.

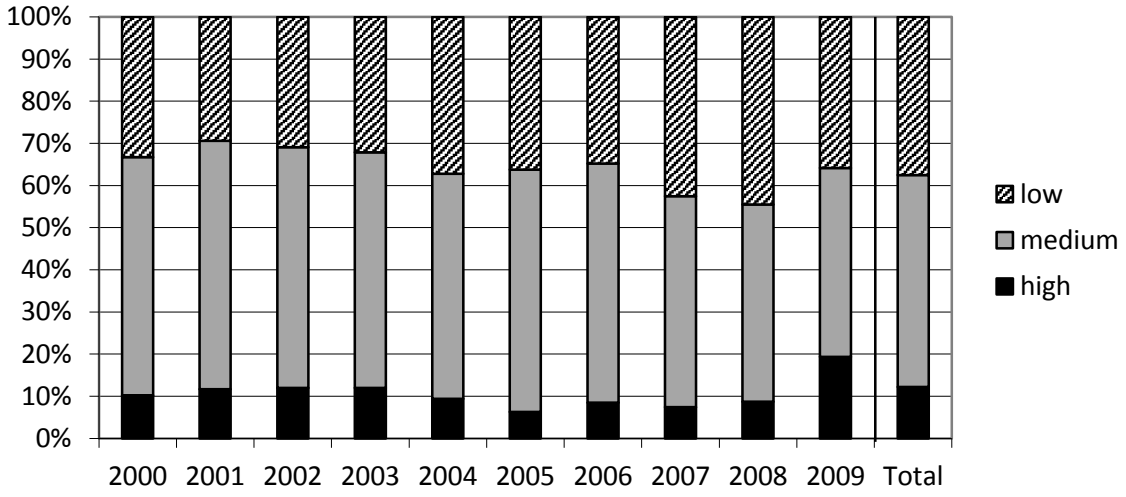
high- but also low-educated migrants from the EU10 in several EU15 countries increased after the 2004 enlargement (Kahanec and Zimmermann 2010).

Figure 8: Educational attainment of EU10 and EU2 citizens in the EU15.

a. EU10



b. EU2



Source: Own calculation based on the EU Labour Force Survey, 2009.
Notes: In per cent of total EU8 and EU2 populations resident in the EU15 above and including 16 years of age, excluding conscripts on compulsory military or community service as well as anyone whose highest level of education or training successfully completed was attained after his or her immigration to the current country of residence in the EU15. No data available for Malta. Germany excluded due to no information on migrants' country of birth.

More concretely, in 2009 among EU10 nationals in the EU15 the share of high educated was 26.1% and low educated 22.5%; i.e. they were considerably more educated than EU2 nationals in the EU15 of whom 12.2% were high and 37.5% low educated. While EU migrants have been on average less educated than EU10 migrants, EU2 nationals were nevertheless more educated than the total population in the EU15 with 18.9% high and 45.7% low educated residents. EU10 as well as EU2 nationals in the EU15 were each positively selected also relative to their source populations (see also Holland et al. 2011).[14]

Patterns of selection appear to have been uneven across an enlarged European Union, with transitional arrangements affecting the scale and composition of post-enlargement migration flows.[15] Holland et al. (2011) find that Luxembourg, Demark, Sweden, and Ireland are most popular among high-skilled workers while low-skilled workers are more likely to go to Greece, Portugal, Spain, Belgium, Netherlands, and Finland. This needs to be understood in the context of supply and demand in the sending and receiving labour markets. The migration decision is also conditioned by the expectations of the potential migrant about his or her probability of success in securing desired employment. Potential migrants better equipped to succeed are thus also those who are more likely to migrate, which may also explain positive selection of labour migrants with respect to source populations. Finally, several EU15 member states have applied transitional arrangements towards EU8 and EU2 migrants differently. As more skilled migrants appear to have been more distracted by transitional arrangements than their less-skilled colleagues, this policy variation may explain part of the observed differences in selectivity between EU8 and EU2 migrants (Kahanec and Zimmermann 2010).

With respect to employment outcomes, EU8+2 migrants generally have high (waged) employment rates, but typically work in less-skilled occupations than natives. They are overrepresented in low- and medium-skilled occupations and sectors, such as construction, manufacturing, hotels and restaurants, and agriculture (Kahanec, Zaiceva and Zimmermann, 2010; Blanchflower and Lawton, 2010). This may signify imperfect adjustment and downskilling of relatively well-educated migrants into less-skilled occupations. While this implies brain waste, it may also be part of an optimal migration strategy, lead to a more efficient utilisation of the labour force, and be just a temporary phenomenon, as labour market outcomes of migrants typically improve with time.

Indeed, early studies suggest that there were no signs of significant brain drain, although some skilled sectors, such as medical doctors, lost non-negligible proportions of their workforce (Frelak and Kazmierkiewicz, 2007; Brücker et al. 2009; European Commission, 2008; Hazans, 2012). There is also ample evidence suggesting that for EU8 and EU2 migrants the possibility to work abroad offered the

[14] Most of these results stay valid if we look at prime working age population (25-54), except that EU2 migrants then appear to be negatively selected form their source population.
[15] Kahanec, Zaiceva and Zimmermann (2010), Kahanec and Zimmermann (2010b).

opportunities that were missing in domestic labour markets. From such perspective, alternative to migration would have been unemployment or inactivity. Moreover, some evidence exists suggesting that for young workers in particular, experience of working abroad is valued positively in domestic labour market after return, as it demonstrates a set of desirable skills, such as independence, initiative or language proficiency (Kureková, 2011).

Effects on the receiving countries

Based on a broad account of labour market impacts of post-accession migration flow in receiving countries, Kahanec et al. (2010) conclude that there is little evidence that they would crowd out native workers from employment or lower their wages, even in the countries with most marked increase in migrant inflows (UK, Ireland, Spain). A downward pressure on wages in low-skilled sectors and strain on the provision of public services and housing in the areas where the immigration concentrated was suggested by some reports (House of Lords 2008; Trade Union Congress 2007). Generally, however, EU8 immigrants were filling shortage sectors (e.g. manufacturing and construction) and complemented rather than replaced domestic and other immigrant labour force (Kureková, 2011).

Similarly, relatively low welfare dependency was documented among post-accession immigrants, although there is some evidence that it grew as the migrants fulfilled the legal requirement of employment duration to qualify for such benefits (Kureková 2011). This is related to contributory nature of benefit schemes and other restrictions and conditions on access to welfare rights and responsibilities (Kureková 2013, also see Zimmermann et al. 2012). Welfare system structures in host and home countries might have affected patterns of return migration affected by the economic crisis. Kahanec and Kureková (2013) found that the degree to which return migrants to Slovakia enter unemployment registers differs quite significantly based on the country of previous employment. Anacka and Fihel (2012) have argued that return of mainly rural origin migrants back to Poland during the recent crisis is related to the preferential status and access to social security system of farmers and their families in Poland. Zaiceva and Zimmermann (2012) have studied the mobility of workers from EU8 and EU2 Member States in the receiving EU15 countries. A significant proportion of these migrants stayed abroad only temporarily, and the Great Recession has triggered return intentions. Their findings suggest that brain circulation rather than brain drain is relevant and that returnees are most likely to migrate again. Repeat and circular migration is expected to alleviate the potential negative impacts of the crisis, leading to a more efficient allocation of resources within the enlarged EU.

Effects on the sending countries

EU accession and the ensuing labour mobility impacted EU8+2 sending countries in varied ways, and had most significant effect on their labour markets. Two related phenomena occurred between accession and the outbreak of the crisis in the countries with greater outflows. High labour mobility from these countries combined with strong economic growth resulted in a marked decline in unemployment rates, including youth unemployment. Relatedly, labour shortages in some sectors and occupations occurred (Kaczmarczyk and Okólski, 2008, Kadziauskas, 2007, Galgóczi, Leschke, and Watt, 2012). This encouraged governments to revise migration policy framework and in some countries led to designing of preferential schemes towards EaP migrants, but also some Balkan countries (Frelak and Kazmierkiewicz, 2007; Iglicka, 2005; Kureková, 2011).

For gains and losses of mobility, it is also important to what extent these transmitted to the left-behinds in the form of remittances. Kahanec, Zaiceva, and Zimmermann (2010) report an increasing importance of remittances in a number of sending countries, most significantly in Bulgaria and Romania, but also the Baltic states. Unsurprisingly, the overall volume of remittances to the EU8 and EU2 declined in 2009 after years of growth due to the worsened economic situation in the host economies affected by the 2008-2009 economic crisis (Comini and Faes-Cannito, 2010). Kaczmarczyk and Okólski (2008) document that remittances were primarily used for consumption and durable goods during the early post-enlargement period, but also report that more recently they have been invested in human capital as well. Kahanec and Pytliková (2013) find rather positive effects of east-west migration in receiving countries' economies and, using the same migration database, compare these to the impact of recent EaP migration in Europe. These are summarised in the next section.

In sum, EU8 and EU2 migrants have responded flexibly to economic conditions across Europe, not least due to the fact that free mobility has allowed them to freely relocate within the EU. Moreover, institutional arrangements in the area of social security transposition might have also facilitated return and integration of returned migrants (but more research is needed in this generally under-researched area).

7.2. Costs and Benefits of EaP Migration for Europe

Experience with past flows from the EaP, EU8, and EU2 indicates a generally positive effect of migration on receiving countries' economies (GDP per capita, GDP and employment), which is conditioned by economic integration and free labour mobility (and the prospect thereof).

Immigrants from the EaP in the EU typically:
- *Provide much needed productive capacity and human capital*
- *Help to mobilise internal capacities*
- *Do not negatively affect wages*
- *Do not abuse welfare*

but due to inefficient matching to jobs (downgrading) and negative selection some of the potential benefits are not realised. This calls for improved management of EaP migration flows.

Out-migration from the EaP generally provides for gains from brain circulation and remittances, but the there are risks of Dutch diseases and socio-psychological costs for the left behinds, as well as risks for long run innovation potential and demographic challenges. Again, improved management is an imperative.

This section presents comprehensive evidence to assess the benefits and costs of EaP migration on both the receiving and sending regions. We combine information drawn from the EU and EaP Country Studies as well as other works delivered in the process. We broadly distinguish between effects at macro-level (on the countries) and at a micro-level (on the migrants, migrant households, natives). Conclusions from the EU country studies are rather homogenous, and therefore costs and benefits are fairly comparable. On the other hand, inference on the EaP experience is more heterogeneous, making overall analyses of costs and benefits more challenging.

Prior to proceeding with a careful overview of costs and benefits of EaP migration, it is worth making a few overall observations, already presented in the EaP Synthesis Report (Barbone, Bonch-Osmolovskiy and Luecke, 2013). First, EaP migrants are primarily labour migrants, and often temporary. Given the labour motives behind the migration choice, EaP migration consequently responds to push and pull factors that are primarily of an economic nature. The host countries receive labour migrants of working-age who are likely to respond to changes in labour market opportunities in Europe. Second, while the EaP flows differ in size as a proportion of the sending economy, they still represent a rather small percentage of the stock (and flows) of foreign-migrants in the EU, as shown in Chapter 2. Costs and benefits for the EU are hence rather mild, while consequences for the EaP countries can vary considerably. Third, there is substantial variation determined mainly by data availability in whether the evidence provided is based on systematic analyses or suggestive arguments. Of

the numerous consequences discussed throughout the country studies, we focus on those costs and benefits for which some evidence was available.

Measured costs and benefits: comparing EaP and EU10 migration macroeconomic effects

Given the generally positive effects of EU8+EU2 intra-EU mobility, we now set out to measure and compare these effects to the previous EaP migration into EU15 countries. Here we quantitatively measure the effects of immigration from the EaP countries and the new EU member states on the EU economies over the years 1995-2010. This enables us to assess the nature of the potential effects of future migration flows from the EaP to the European Union.[16] The results of our analysis of the effect of immigration on the EU15 and EU27 destination countries are presented in Table 6. We present OLS as well as 2SLS results, the latter accounting for the possible endogeneity of migration flows. We discuss 2SLS results which we consider statistically more reliable and robust.

[16] Yearly changes, FE and IV estimates. Period of analyses: 1995-2010. The dataset on international migration used for the analyses has been collected by Mariola Pytliková and encompasses information on bilateral flows and stocks of immigrants from all world source countries in 42 destination countries over the period 1980–2010. The dataset has been collected by requesting detailed information on migration inflows and foreign population stocks by source country from selected national statistical offices in 27 OECD countries. For six OECD countries – Chile, Israel, Korea, Mexico, Russian Federation and Turkey - the data comes from the OECD International Migration Database. For nine other destinations – Bulgaria, Croatia, Cyprus, Estonia, Latvia, Lithuania, Malta, Romania and Slovenia – the data is collected from the Eurostat.

Table 5: Consequences of foreign population on production factors, productivity and factors per worker in the EU15 economies

To EU15	Effects of immigration from 2004 EU entrants		Effects of immigration from 2007 EU entrants		Effects of immigration from EaP group	
Dependent variable	**OLS – FE**	**2SLS – FE**	**OLS – FE**	**2SLS – FE**	**OLS – FE**	**2SLS – FE**
Log (GDP per Capita)	-0.001	0.03**	-0.0021	0.055*	-0.00486***	-0.0130***
	(0.002)	(0.01)	(0.001)	(0.03)	(0.00135)	(0.00501)
Log (Total GDP)	-0.00073	0.0529***	-0.00108	0.092**	-0.00589***	-0.0144**
	(0.00343)	(0.01657)	(0.00181)	(0.04367)	(0.00173)	(0.0062)
Log (Labour force participation)	0.0005*	0.0005	0.0005*	0.0009	0.00049*	-0.00134
	(0.0003)	(0.002)	(0.0003)	(0.003)	(0.00027)	(0.00154)
Log (Employment rate)	-0.0004	0.02***	-0.0002	0.03***	-0.00061	-0.00993***
	(0.00105)	(0.003)	(0.0006)	(0.01)	(0.00056)	(0.00348)
Log (Capital stock)	-0.00006	-0.0001	-0.00007	-0.0003	-0.00002	-0.00196***
	(0.0002)	(0.0006)	(0.00009)	(0.001)	(0.00009)	(0.00063)
Log (Total factor productivity)	0.00004	-0.004	0.00007	-0.007	-0.00015	-0.00247*
	(0.0004)	(0.002)	(0.0005)	(0.006)	(0.00031)	(0.00143)
Log (Capital to labour ratio)	0.001	-0.017	0.001	-0.018	-0.00389**	0.033***
	(0.003)	(0.01)	(0.0016)	(0.02)	(0.00153)	(0.01038)
Log (Output per worker)	-0.001	-0.03**	-0.0022*	-0.06***	-0.00452***	0.00544
	(0.002)	(0.01)	(0.0012)	(0.02)	(0.00113)	(0.00574)
No of Observations	225	183	225	183	225	161
F-test		7.88		11.08		11.39

Notes: Each cell shows the coefficient from a different regression with the dependent variable described in the first cell of the row and the explanatory variable equal to the total flow of immigrants as a share of the initial population of the receiving country. All regressions includes year, country fixed effects and interaction of region dummy and time. Robust standard errors clustered by country are in parentheses. The 2SLS estimation method uses the predicted flow of immigrants from the gravity push factors as instruments; the predicted share of foreign population per destination population are then summed on the destination country level and used as an IV. ***,**,* imply significance at the 1, 5 and 10 per cent level.

We find positive and significant effects of post-enlargement migration flows from the new EU member states on GDP, GDP per capita, and employment rate and negative effect on output per worker in the EU15. We find economically small but statistically significant negative effects of migration from the Eastern Partnership countries on GDP, GDP per capita, employment rate, and capital stock in the EU15, but a positive significant effect on capital to labour ratio. More specifically, the estimated effect on income per capita is quite large as the coefficients imply that 10 per cent increase in the number of immigrants coming from the 2004 and 2007 EU member countries per destinations population increases the destinations income per capita by 0.3 and 0.55 per cent, respectively. In contrast, 10 per cent increase in share of immigrants coming from the EaP lowers income per capita in the EU15 countries by 0.13 per cent.

With respect to a positive significant effect of EaP migration on the capital to labour ratio, we interpret this result as an increase in the use of capital-complementary techniques enabled by EaP migration to less capital intensive sectors and in final goods production. This appears consistent with country study findings that EaP migration might favour the employment of certain sub-populations (such as productive women), which might in turn ignite a positive process of capital accumulation.

With due respect to data limitations, we interpret the results of this comparative analysis based on the past immigration to EU15 between 1995 and 2010 as indicating a generally positive effect of migration on receiving countries' economies, which is conditioned by economic integration and free labour mobility (and the prospect thereof).

Evidence from EU country studies

EaP Migrants as providers of benefits

A review of findings in EU country studies allows us to summarise benefits and costs of EaP migration at the national and local level. Benefits are multiple and are related to profiles of EaP migrants described in earlier sections.

As already shown, due to work-related nature of EaP flows, the country studies show fairly high average employment rates in the EaP population. Hence, a key benefit results from high degree of labour market activity. Considering that Europe as a whole is experiencing a period of important structural changes, driven not only by the recent economic crisis, but also by the demographic transformation triggered by decreasing fertility and increasing life expectancy, the arrival of productive workers constitutes a considerable benefit for destination countries. Accordingly, several additional benefits have arisen from the analyses.

All country studies have shown that EaP female migrants concentrate in the domestic service and act as "household welfare providers", wherever there is a lack of access to public care. Evidence from Spain and Italy suggests that foreign migrants working in the family sector as care givers have favoured the labour force participation of native women. Consequently, EaP migrants might be instrumental in the mobilisation of internal capacities against the backdrop of native participation ratios that worry European policymakers.

All the country studies have shown very little effect on native wages, presenting an occupational distribution between the two groups that suggests the presence of complementarities rather than substitutability between migrants and natives. For example, the Italian country study mentions that migrants positively affected wages of Italian workers, with a zero effect on the most vulnerable groups of the native population. Such effects are explained by poor local flexibility and strong role of unions in the Italian labour market. Furthermore, the German country study argues

for no downward pressure on native wages. These results are unsurprising, bearing in mind the relatively small size of these migrants in the total population (and the immigrant population), but also the indicated complementarities.

As discussed in detail in the section about migrant profiles, EaP migrants were found to be well educated in all countries, typically exceeding the educational attainment of other immigrants and natives themselves. In Poland and Germany, an important share of migrants was found to hold technical and engineering degrees. EaP migrants might therefore serve as a channel for further human capital development in the EU. The presence of highly skilled EaP migrants might alleviate the increased demand not only in engineering occupations, but also in all other occupations where shortages are expected, such as health care, legal, management and business administration.

Lastly, evidence at the micro-level suggested that access to the pension system has been very limited, and EaP migrants do not have disproportionately higher welfare take-up rates than other migrants in terms of access to social assistance or family benefits. In Spain and Germany, migrants have relied on unemployment benefits to a larger extent than natives which, however, reflects their likelihood to work in the sectors affected negatively by the crisis.

Limited Costs of EaP Migration in Europe

While EaP migration might bring benefits to the host regions, all country studies have detected an important cost, or at least a factor, hampering the advantages that would otherwise arise from this source of mobility. Despite a high level of educational attainment, EaP migrants predominantly find employment in low-skilled and unskilled jobs, with only a small share of EaP migrants finding employment in highly skilled occupations, primarily in the UK (financial sector) and Poland (IT sector). While highly qualified EaP migrants have filled up the shortages in the domestic and private sector services in countries such as Italy and Spain, skill mismatches in countries such as Germany have implied higher unemployment rates. The German country study reports half of the employment gap between EaP migrants and natives closing once over-qualification is taken into account.

There are several consequences of poor labour market matching for the host countries. At the individual level, the market is unable to absorb the productivity potential of the migrants, who become a vulnerable part of the population. Indeed, upon arrival in Spain, male (female) migrants are 60 (34) percentage points less likely to work under a permanent contract than their native counterparts, although this gap closes over time. Furthermore, the lower employment probability seems to translate into a higher likelihood of receiving unemployment benefits than natives. In some cases, access to unemployment benefits appears to be a consequence of the inability to find appropriate occupations (Germany), whereas in other cases it seems a consequence of their substantial presence in sectors affected negatively by the crisis (Spain). More worryingly, the Spanish study reports the absence of convergence in terms of the over-education differential between EaP migrants and natives.

Juxtaposing these findings to results of the Kahanec and Pytliková (2013) study, it seems plausible to claim that improved management of EaP immigration and integration into EU labour markets would provide for similarly positive effects as in case of EU10 and EU2 migrants.

Benefits of EaP Migration for EaP countries

The costs and benefits of EaP migration on the sending countries need to be assessed by understanding the heterogeneity of experiences in terms of the size of the migrant outflow relative to the population, the characteristics of migration and the preferred destination regions (Barbone, Bonch-Osmolovskiy and Luecke, 2013).

At the household level, information throughout the EaP studies suggests that migration is a consequence of high poverty rates at home. Hence, the flow of remittances generated by the migrants are not saved or invested in productive activities – possibly also as a response of the high business start-up costs - but rather are devoted to purchases of consumption goods and housing, and investment in health and human capital formation. However, compared to a no-migration benchmark the country studies showed that remittances have alleviated poverty in households with migrants, particularly in countries such as Armenia, Georgia and Moldova. In fact, the loss of tax revenue due to migration is likely to be compensated by increased domestic spending fuelled by remittances. Lastly, remittances might also help the development of the financial sector, increasing the likelihood of access to financial services by remittance-recipient households. Indeed, such positive effects have been found to be particularly high in Moldova, with the benefits derived from this channel only starting to be fully exploited through the expansion of formal financial institutions in the EaP countries.

Costs of EaP Migration on EaP countries

As a predominantly temporary phenomenon, EaP migration might impose costs on the household members that remain in the home country. Indeed, the absence of a parent might place their children's development at risk or reduce support to the elderly. However, evidence concerning these costs is rather scant. Evidence from Moldova in Luecke and Stoehr (2012) suggests that costs on children left behind are non-existent, probably because migrants ensure the presence of well-functioning caregiving arrangement prior to migration. Even less is known on the potential costs on the elderly population, with Luecke and Stoehr (2012) suggesting that the presence of an adult child increases the well-being of elderly individuals. However, these conclusions might not be generalisable to other contexts, and it is difficult to gauge the magnitude of such costs.

As explained in detail in the EaP Synthesis Report (Barbone, Bonch-Osmolovskiy and Luecke, 2013), remittances may lead to a real appreciation of the domestic currency, reduced competitiveness and an increased size of the non-tradables sector. Given the

high volatility of foreign-exchange flows, expansions of the non-tradables sector renders the economy vulnerable to external shocks; furthermore, growth might be dampened by the reduction in tradables if not followed by substantial human capital investment. The evidence presented in our analyses suggests that the real appreciation of EaP countries' currencies have been higher overall in the smaller, high-emigration countries such as Armenia, Georgia and Moldova. Moreover, the share of services in the economy has been growing substantially in Georgia and Moldova. All of these factors indicate a future risk of Dutch disease.

While those left behind might benefit from remittances, there is a question of whether migrants abroad incur skill gains or losses, which might have consequences on the home state economy in the form of brain drain and brain waste. Permanent outflows may generate risks for countries' innovation potential, and may aggravate the problem of aging and low fertility existing in the EaP states. The EaP country studies have shown that although EaP migrants to the EU are on average more educated than those going to other destination countries, compared to the population at home there are still a larger number of less skilled workers among them. Therefore, although skill downgrading exists, the negative effects of brain drain on the source regions seem limited from this perspective. It is also important to consider alternatives to migration whereby in the absence of migration, EaP workers might face joblessness, inactivity, low-paid and unstable work, as well as lack of job opportunities matching their qualifications. This is not to deny that better matching of EaP migrants in the EU receiving countries will generate more benefits to receiving countries, sending countries as well as migrants themselves and should become a policy objective. So that the outflow of productive workforce brings benefits to the EaP countries, it will be crucial whether EaP migrants return, with what human capital and how well they will be able to utilise it in domestic economies. In this area, scope exists for policies in the origin countries which would facilitate integration of return migrants, and, for example, direct their potential to entrepreneurial activities.

To sum up, while cost-benefit analyses are complex exercises, with not only the economic impact but also all the social and political effects requiring consideration, some patterns seem to emerge from the discussion. The costs for Europe appear to come primarily from its inability to effectively manage flows of migrants from the EaP and their integration in the labour market. Whereas in general the flows of migrants from the new member states affect the receiving labour markets positively, the EU is missing the opportunity for a win-win situation in case of EaP migrants. The forgone opportunity for positive effects is mainly due to poor matching of EaP migrants to jobs where their potential would be fully utilised. In fact, the potential costs associated with EaP migration might be related to the lack of recognition of qualifications, poor quality of education in the sending countries, poor knowledge of the host country language or migrants' individual strategies and preferences. In spite of these difficulties, no particular negative effects on the natives are present, nor on the welfare system. Positive impact of East-West post-accession migration, which is

similar with EaP migrant profiles in some characteristics, suggests that more liberal migration policies tend to lead to more favourable macro and micro-level outcomes and allocative efficiency, as well as more positive (self-)selection into migration.

Potential costs stemming from the sending countries' side primarily derive from the forthcoming possibility of a Dutch-disease. Although other negative externalities might haunt the left-behind, there is presently little evidence for them. On the other hand, benefits for the EaP countries are apparent, with increased GDP growth, smoothed excess of labour supply and increased real wages. Remittances have lifted tight household budget constraints, allowing individuals to spend more on consumption goods, health and education. While macro-level benefits for Europe might be less pronounced, we should bear in mind that the identified costs are rather limited, also due to so far small number of EaP migrants in the EU countries.

Part of the costs for Europe and potential costs for the EaP countries might be reduced through proper management of migration flows, and similarly benefits might be enhanced. In the next subsection we elaborate on the aspect of labour market matching which has been identified as one of the key deficiencies of EaP migration into the EU to date.

7.3. Immigration and skill gaps in the EU

Migrants fill up labour market gaps in European labour markets more flexibly than natives.

The European labour markets have been suffering from structural inefficiencies in labour markets characterised by labour and skill shortages and mismatches. Economic costs of skill gaps in Europe can be large. Lucifora & Origo (2002) who estimate short-run and long-run costs as well as direct and indirect costs of skill shortages in Europe estimate that costs generated by skill gaps are quite remarkable and range around 7 per cent of GDP. Perhaps the key consequence of the skill shortages is the impact on wages, as firms are forced to raise wages in order to attract relatively scarce skilled labour. Increased wages may affect trade and competitive capacity of export oriented sectors (indirect effect), and have inflationary pressures (direct effect). Additional consequences lie in lowered productivity, when firms fill high-skilled jobs by low-skilled workers, or decreased innovation potential, if the shortage exists among the high skilled workers. If shortages lead to wage increases in selected sectors, this can result in widened wage differentials across skills levels and larger inequalities (Lucifora & Origo, 2002; Neugart & Schömann, 2002). Improved flexibility in the labour market is a general tool for improving labour market adjustment. This can be achieved in a number of ways. Especially in the cases of rigid or segmented labour markets with low mobility of resident labour to eliminate labour shortages, bringing workers from abroad might be an alternative. However, analyses

investigating to what extent migrants have been filling shortage sectors are scare. In view of providing recommendations on better matching, in this section we set out to test this question.

Approach

The methodology used is motivated by Borjas (2001) who studied whether immigration into the US greases the wheels of the labour market and found that newly arrived immigrants are much more likely to be clustered to those states which offer higher waged for the types of skills they offer and so help to equalize economic opportunities across areas. Dustmann, Frattini and Preston (2010) applied similar estimation strategy to assess whether immigration reduces regional disparities between wages in the United Kingdom.

Using a similar approach, we test whether immigration helps to reduce labour shortages in the European labour market. In particular we look at the relationship between residual wage differentials of jobs in different industry-skill groups and the decision of migrants and natives to work in these jobs. Wage differentials across jobs that go beyond what can be explained by differing characteristics of workers in these jobs – residual wage differentials or wage premiums – are then taken as a measure of labour shortage in a given industry-skill cell. The analysis then evaluates the reaction of migrants towards jobs with higher wage premiums. Aggregation of standard ISCO and NACE categories into larger groups in order to gain sufficient number of observations in a cell is presented in Annex B. Table B.1 describes how nine major occupational groups are grouped into four categories. Similarly Table B.2 defines nine industry groups based on the NACE classification. Such a categorisation generates 36 groups for which we calculate respective labour shortages and index of relative supply of migrants. The final sample includes information for 13 European countries over period 2004-2010.[17]

Data

The analysis in this section combines the European Union Labour Force Survey (EU-LFS) and European Union Statistics on Income and Living Conditions (EU-SILC). Both data sets are household surveys conducted annually in all Member States of the European Union. The information on earnings of workers in the EU is taken from EU-SILC to determine the labour shortages (wage premium). The classification of industry and occupation categories in EU-SILC is consistent with EU-LFS. Owing to

[17] Sample includes Austria, Belgium, Denmark, Finland, France, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden and United Kingdom. Germany was excluded as foreign-born workers could not be identified in the data and Luxembourg was excluded for its small size.

its large sample size, the EU-LFS provides reliable information on the share of foreign-born population and it is commonly used in the research analysis on immigration in the European context (D'Amuri and Peri, 2012). In this section EU-LFS is used to calculate the shares of native/foreign-born workforce within industry and skill groups. The definition of migrant worker is based on the country of birth however data does not allow to unambiguously distinguish the origin of migrants. Foreign-born persons are therefore treated as one group. Finally, GDP and unemployment rate were obtained from the World Development Indicators (WDI) online database (http://data.worldbank.org/data-catalog/). Per-capita GDP is PPP adjusted and expressed in 2005 US dollars.

The Model

The analysis proceeds in the following two steps: in the first step wage premiums measuring labour shortages, are estimated for each cell, in the second relative mobility of migrants vis-à-vis natives as a function of labour shortages across cells is measured (See Box 1 for more detail). The unit of observation in the regression is industry-skill-country group. The dependent variable is the measure of the relative supply of immigrants. The model tests whether the relative supply of migrants responds to the changes in the labour market, measured as labour shortage by wage index within the given group. The variable of labour shortage is lagged by one year so the response of immigrants is delayed. Labour shortage is computed at the international level (i.e. all 13 studied EU countries) as if countries were competing for migrant workforce. Two specifications were developed, without and with controls for unemployment rate and GDP levels. Models are estimated in the first difference form and additionally include time and country fixed effects. This controls for variation in factors that remain constant within cells, such as industrial structure, unionisation levels and the like. It also permits a very strong interpretation of results, namely, that a positive effect of shortages on relative inflow of migrants can be interpreted as a link between changes in shortages and changes in migration patterns.

Box 5.1: Methodology of the evaluation of matching

First a log wage index is constructed to measure the relative wage of industry-and-skill specific group in a particular country and a particular year. The index is computed for each year from a separate log-wage regression of the form

$$W_{ikc} = X_{ikc}\beta + \gamma_{kc} + \varepsilon_{ikc} \qquad (1)$$

where W is the log income of worker who belongs to industry and skill group k in country c, X is a vector of worker's characteristics like gender, education, and work experience and ε is the error term assumed uncorrelated with all the independent variables in the model. We normalise income and all variables in vector X to have mean zero in each year t. The γ gives a vector of fixed effects for industry-skill-country group. Log wage index γ denotes the per cent wage differential between the average wage (adjusted for individual characteristics) for individuals in the particular industry-skill-country group and the mean wage for a given year. The wage index thus represents the wage premium in the given industry-skill-country group with respect to the average value at the European level. In the analysis we test whether migrants are responsive to these differences to higher degree relative to native population.

In the second step, we compute the measure of relative supply of migrants and natives within industry-skill-country groups. Following the Borjas (2001) we define the index of relative supply for industry-skill group k as

$$Z_{kc} = \frac{M_{kc} / M_k}{N_{kc} / N_k} \qquad (2).$$

The variable Z is the measure of relative supply, M_{kc} is the number of migrants belonging to group k and country c while M_k is the total number of migrants corresponding to group k. The denominator similarly indicates the relative supply of natives in the particular group. The relative supply index equals one when migrants and natives workers are relatively equally distributed. The index is greater than one if migrant workers are over-represented in the industry-skill group k relative to native workers. Index is computed for each year.

In the final analysis the first-difference regression model is defined with lagged wage index.

$$\Delta Z_{kc} = \Delta_{-1}\gamma_{kc} + \varepsilon_{kc} \qquad (3)$$

In the alternative specification the model is augmented with the country specific unemployment rate and GDP per capita. Estimates are presented in Table 8.

Results

Table 7 reports patterns of shortages across the industry-skill groups measured as changes in ranks of industry-skill groups over time. We report rank changes for the whole studied period 2004-2010, as well as the periods preceding and through the Great Recession. We observe that over the studied period skilled non-manual workers

in education and public administration, highly skilled workers in transport and accommodation, and skilled manual workers in trade and finance and communication improved their position, mainly due to relative gains (over other industry-skill groups) during the Great Recession. Skilled non-manual workers in construction and transport and accommodation, elementary workers in manufacturing, education and health sectors, and highly skilled workers in education and finance and communication suffered from major rank losses, again mainly during the Great Recession. Construction generally suffered major rank losses during the Great Recession, following rank improvement over the period preceding it. Public administration is the only industry that shows rank improvement over the studied period across all skill-groups.

Table 6: Labour shortage and relative supply index by industry and skill

Industry	Skill	Rank shortage change		
		2004-10	2004-7	2007-10
Education	Skilled non-manual	6	3	3
Transport, accommodation	Highly skilled	4	-1	5
Trade	Skilled manual	4	2	2
Public administration	Skilled non-manual	3	1	2
Finance, communication	Skilled manual	3	-1	4
Transport, accommodation	Elementary	2	0	2
Trade	Elementary	2	3	-1
Public administration	Elementary	2	3	-1
Public administration	Highly skilled	1	0	1
Trade	Highly skilled	1	0	1
Manufacturing	Skilled manual	1	1	0
Health	Skilled non-manual	1	1	0
Public administration	Skilled manual	1	-3	4
Trade	Skilled non-manual	1	3	-2
Finance, communication	Elementary	1	-1	2
Agriculture	Skilled manual	1	1	0
Manufacturing	Highly skilled	0	0	0
Construction	Highly skilled	0	1	-1
Manufacturing	Skilled non-manual	0	1	-1
Transport, accommodation	Skilled manual	0	1	-1
Construction	Skilled manual	0	3	-3
Health	Highly skilled	-1	0	-1
Finance, communication	Skilled non-manual	-1	0	-1
Construction	Elementary	-1	4	-5
Agriculture	Skilled non-manual	-1	0	-1
Health	Skilled manual	-1	0	-1
Agriculture	Elementary	-1	1	-2
Finance, communication	Highly skilled	-2	0	-2
Education	Highly skilled	-2	0	-2
Health	Elementary	-2	0	-2
Transport, accommodation	Skilled non-manual	-3	0	-3
Education	Elementary	-4	-3	-1
Manufacturing	Elementary	-7	-2	-5
Construction	Skilled non-manual	-15	-5	-10

Source: EU-SILC, LFS, own calculations.
Note: Information in the table is based on 2004-2010 data. Labour shortage is computed as the residual from equation (1) (averaged over countries), changes in ranks shortages are

calculated as difference over time of within-year shortage ranks (within each year higher shortage is assigned higher rank).

The estimates of regression presented in Table 8 imply that the industry-skill-country specific wage differential between countries is positively correlated with the relative supply of immigrants. Findings confirm that Europe's labour markets are characterised by a higher responsiveness of migrants to labour shortages than that of the natives. In other words, immigrants effectively fill in gaps across industries, countries or occupations across the EU. More specifically, a positive increase of wages within industry-skill-country group by 12 percentage points (that is equal to one standard deviation of wage index) leads to an increase in the relative supply of migrants (i.e. share of migrants over share of natives in the given cell) by 1.3 percentage point. This implies an elasticity of supply of about 0.1 for immigrants relative to natives. Interesting results emerge when we add unemployment rate and GDP per capita to the specification. A significant estimate on unemployment rate implies the supply of immigrants is more sensitive to labour market conditions in the country relative to natives. As unemployment in the country increases, the immigrant labour force declines more relative to the native labour force. The estimate on GDP is not significant, meaning that economic changes tend to influence the supply of immigrants and natives equally.

Table 7: Relative supply of migrants

	Model (1)	Model (2)
Labor shortage	0.125**	0.105*
	(0.062)	(0.063)
Log GDP pc		0.375
		(0.611)
Unemployment rate		-0.009*
		(0.005)
Country FE	Yes	Yes
Year FE	Yes	Yes
R2	0.207	0.209
N	1751	1751

Source: Based on EU-SILC, EU-LFS, and WDI data. Standard errors in parentheses.
Note: Dependent variable is the measures of the relative supply of immigrants. All variables are lagged and models include time and country fixed effects.

7.4. Household level costs and benefits: micro-level results

Reconciliation of the economic benefits and costs of migration at the household level requires further policy attention. This includes visa regimes, recognition of qualifications, management of transitions between jobs, as well as access to social and health services.

Receiving countries' migration frameworks affect possibilities for circular migration and affect migration practices and strategies.

In order to complement and enrich the findings of the macro-level investigations of costs and benefits presented so far, we have sought to provide in-depth insights into the particularities of migrants' choices, experiences and trajectories at the household level. To that end we conducted a small-scale ethnographic qualitative field research to study individual and household level costs and benefits in the context of temporary and circular migration of Ukrainian nationals to two EU countries, the Czech Republic and Italy. These EU states represent two most popular EU destinations for Ukrainian migrants,[18] but differ in a number of important aspects which help us to cover a range of factors likely to impact migration costs and benefits at the micro-level. These include sectors of employment (construction and retail in CZ, geriatric care in IT), cultural and language affinity (linguistic closeness of Ukrainian and Czech languages) and histories of migration (longer history of migration between Ukraine and the Czech Republic, while only recently emerging migration between Italy and Ukraine). Qualitative semi-structured interviews were conducted with small number but a diverse group of migrants, following similar approach in Kindler (2011), Tolstokorova (2010), or Solari (2010). This methodology is suitable to understand mechanisms and to gather rich details on aspects of behavioural strategies of migrants in their coping with barriers they face when migrating and working in the EU. Further methodological details of field work are presented in Box 5.2.

Box 5.2: Description of field research

The field research was conducted between May and September 2012 and altogether 11 respondents were interviewed in Prague and 10 in Bologna. Two different strategies were applied in contacting respondents in Czech Republic and Italy. In Prague, the first five interviewees were contacted through a Ukrainian worker of an organisation providing legal support to migrants. One interviewee was reached through social networks such as Facebook and a note about the research that was placed in the Ukrainian online portal in the Czech Republic. The rest of the respondents in Prague were found through a "snow-ball technique," when each respondent was asked to recommend an acquaintance for an interview. In Bologna, the original contacts came from an NGO of returnee migrants in Ivan-Frankivsk,

[18] Roughly over 12 per cent of Ukrainian migrants go to the Czech Republic and 15 % to Italy (Ukrainian Country Study - Coupe and Vakhitova, 2012).

Ukraine (who recommended some contacts of current migrants in Bologna), Bologna parish of the Ukrainian Greek Catholic Church and, further on, through the snow-ball technique.

The majority of the interviews in Prague were conducted in neutral locations in public spaces in out-of-work time for migrants. Two interviews were conducted in migrants' homes. In Italy, 3 interviews were conducted at the migrants' work place – the house of an Italian employer, where the migrants were performing their duties of geriatric care. The rest were recorded, as with the Czech interviews, in various public spaces. All interviews were anonymous, lasted from 40 minutes to one and a half hours, and were conducted in the original language of the interviewee (Ukrainian or Russian).

In spite of a limited number of respondents, the interviewed migrants were rather diverse, with more variety in the Czech cohort. In the Czech Republic the total of 6 women and 5 men of different age (between 20 – 62 years of age) were interviewed. Among them 3 men were construction workers from Transcarpathian region, 2 women were employed in temporary, low skilled jobs, 2 respondents (a man and a woman) were relatively high-skilled employees of multinational IT companies. 3 respondents came to the Czech Republic for re-unification with their families. One woman came as a low-skilled migrant 20 years ago and worked her way up to a better position (an administrator in a private school). The legal status of migrants also varied significantly: from permanent residence through a entrepreneurial and work visa, to a family dependent without the right to work. Among the respondents only 1 person was not working (a woman fully dependent on the income of her partner).

In Italy, 9 women and 1 man between the age of 33 and 70 were interviewed. 6 out of 9 women worked in geriatric care, 1 (the youngest women) worked as a baby-sitter and 2 were self-employed (one was running a cleaning agency and the other, a women's clothes shop). The interviewed man was out of work. Additional details about research methods, interview questions and respondents can be read in Fedyuk (2012).

Field research gathered empirical evidence about practical functioning of labour mobility in order to gain a deeper understanding about institutional, economic, social and cultural incorporation of Ukrainian migrants in host and home economies.[19] The results highlight complexities of circular and temporary migration, which has been advocated as a favourable policy paradigm in the recent policy discourse (Constant, Nottmeyer and Zimmermann, 2012). With respect to patterns of migration, we found that receiving countries' migration frameworks (specific migration policy, access to social system for migrants) but also general institutional and structural environment (migrant sectors, labour market regulation, range of contractual arrangements, etc.) strongly affect the possibilities for circular migration, especially of migrants

[19] The field research was conducted between May and September 2012 and altogether 11 respondents were interviewed in Prague and 10 in Bologna. Details about research methods, interview questions and respondents can be read in Fedyuk (2012).

employed in low-skilled sectors. The external position to the EU and consequent visa regimes tend to create a permanent complication of the circulation, through border controls, contract-dependent stay permits, lengthy bureaucratic processes of applications and renewals of the documents. On an individual level all these obstacles translate into years of efforts in which migrants often develop various forms of dependencies on employers and intermediaries (see also IOM 2013a). "Circularity" in migration can be hindered not only by limitations of legal status of a migrant but also by the informal arrangements at work (employer's unwillingness to accommodate such pattern), the lack of a trustworthy partner who would substitute a migrant at work at times spent at home, distance and expenses connected to traveling home, lack of opportunities for meaningful and profitable activity during the stay in home country and economic non-sustainability of such visits (i.e. when the times of 'not earning' at home lead to too drastic expenditures and gaps in the household income).

Distinct migratory regimes – a "work-linked visa regime" of the Czech Republic and a "tourist visa-regularisation regime" in Italy – had an influential impact on the differences in the migratory practices and strategies. The fact that most of the Czech respondents entered on a valid work visa secured them from the need for prolonged uninterrupted stays after the first migration. The majority of Italian respondents entered Italy on the tourist visas and could regularise their work and stay only after a few years; they therefore had to invest several years into building a personal relationships and trust with the employer who would secure their regularisation through the Italian quota system. Different forms of residence permits created different obstacles to circularity in the Czech Republic and Italy: while the Ukrainian migrants in Italy could not afford prolonged visits home due to the nature of their duties as domestic and care-workers, the Czech respondents could not afford longer stays in Ukraine due to the type of entrepreneurial license, that obliged them to pay taxes even during the periods of economic inactivity.

Importantly, geographic proximity in interaction with the migration regime played a role in the accessibility of the destination country and especially the price of the initial migration, and consequently had most direct impact on migrants' indebtedness (i.e. time necessary to pay back the debt) and frequency of travelling home. Interviews revealed that respondents in Italy seemed to have invested much more considerable sums of money into initial migration and tend to stay in Italy for longer non-interrupted periods of time, even if their legality status allows them to travel.

Due to restricted migrant entry to the EU countries, the process of gaining legal entry of Ukrainians was often complicated and had a direct and often quite high monetary price. Among the issues that often complicated or prolonged the process of the legal entry, the role of middle men in initial migration, the role of the employer in negotiations for employment contract, or poor direct access to migration assistance institutions were identified as the main obstacles. In addition, despite the legal protection of legalised foreign workers, many migrants continue to face informal arrangements in negotiations of salaries, working hours and duties in the routine

interactions with the employers. This was especially the case for those working in domestic and care sectors (see also IOM 2013a, p. 22). Importantly, legality was seen as a key point by most of the respondents; it represented freedom of movement and access to labour markets with more work and better salaries. It embodied a secure alternative in case developments in Ukraine were unsatisfactory and an opportunity to respond quickly to labour demands across the borders. Although many of the respondents did not particularly use social security guaranteed by legal status, they saw a regular and precise payment of taxation as obligatory if not symbolic exchange for their right to be legal.

While the majority of the migrants had the right to access social security which came through their legal status in the country, many raised the issue of accessibility of such services. Generally, the access to social benefits was among the least secure points of migrants' status. Many of respondents made full contributions to the social system of the receiving country without clear assurance of the rights to draw these benefits in the future. Even if regulations on the transferability of social rights, such as pensions, existed, most of the migrants voiced uncertainty due to the lack of clear regulations, the changes in the current regulations concerning the status of immigrants' pensions or insufficient knowledge of the system. Moreover, most migrants were not contributing to the Ukrainian social security system during their migration project. These migrants, should they return to home country, are likely to face a significant uncertainty as to their old-age security beyond the money earned in migration. We found a more balanced situation in relation to access to the health care systems. The migrants split into those who could make regular use of the health services, and those who preferred to take care of health problems in Ukraine, despite the paid contributions. Migrant income positioned these migrants more favourably in comparison to Ukrainian stayers and allowed privileged access to typically private health services. In host countries, medical care was generally described as satisfactory, but several important gaps were pointed out, especially in relation to child birth and specialized doctors (e.g. dentists, gynaecologists).

The project gathered important nuances related to the concern of brain drain and brain waste noted in the country studies and problematised the concept of mismatch between the level of education and low-status jobs that migrants occupy in the receiving countries. While the interviews confirmed that most of the respondents had to change their original qualifications and took on jobs which were not directly linked to neither their educational nor previous professional experience in Ukraine, limited employment opportunities and poor working conditions in Ukraine were among the key drivers of migration. The interviewees revealed that prior to migrating they have either lost their jobs and could not find meaningful employment, were in danger of becoming unemployed or had a job that paid insignificant wages. We noted a particular problem with respect to employment of graduates with tertiary degrees to find meaningful employment at home (see also Barbone, Bonch-Osmolovskiy and Luecke, 2013). While migrants valued the experience they gained abroad and stated

that migration taught them new and valuable occupational and professional skills, they did not consider these skills useful and directly employable in the home country context. This in turn questions the possibilities for meaningful labour market integration of these migrants after return. Indeed, the sole professional experience from migration period in life for some of the respondents figured as a serious obstacle for considering return.

The economic crisis appears to have had a more immediate impact on the respondents in the Czech Republic than in Italy, which is clearly related to the sectors of employment. Ukrainian migrants in the Czech Republic felt a negative change in their situation after the economic crisis in 2008 more strongly. The response to a more tightened migration policy was not necessarily a return, but rather switching shift from work-visas to entrepreneurial license, even if they in fact remained employees (Leontiyeva, 2011).[20] In Italy domestic workers noted an occasional reduction of hours in their employment, which corresponded with the willingness of their Italian female employers to do some part of the tasks by themselves. Interestingly, even under hardened conditions of migrant stay, the respondents did not consider returning home a better option, fearing that the situation in home country might be even worse.

In sum, receiving countries' institutional framework including migration policy, access to social security system, labour market regulation and contractual arrangements, as well as economic structure determining sectors in demand of migrant workforce seem to impact the costs and benefits of individual migratory projects in multiple ways. The broader policy recommendations point to increased attention to the areas of visa policy, recognition of qualifications, management of transitions between jobs, as well as access to social and health services, but also access to labour market information for migrants and also employers (see IOM 2013a).

[20] Czech entrepreneurial license in fact served as a residence permit for many Ukrainian migrants. It requires quarterly payments of all taxes, which is the basis for further extension of the status. In this arrangement the "cost" of migrants' legal stay in Czech Republic was the need to pay taxation even during the times of unemployment or seasonal visits home.

7.5. The role of industrial relations for costs and benefits of mobility in the EU

More encompassing bargaining may preclude mass labour force immigration, but on the other hand it facilitates a more balanced outcome of migration for both immigrants and the society as a whole.

A dualised bargaining system, with a clear institutional separation between insiders and outsiders seems to be the least effective both from the perspective of migrants and trade unions, especially if coupled with informality of outsiders.

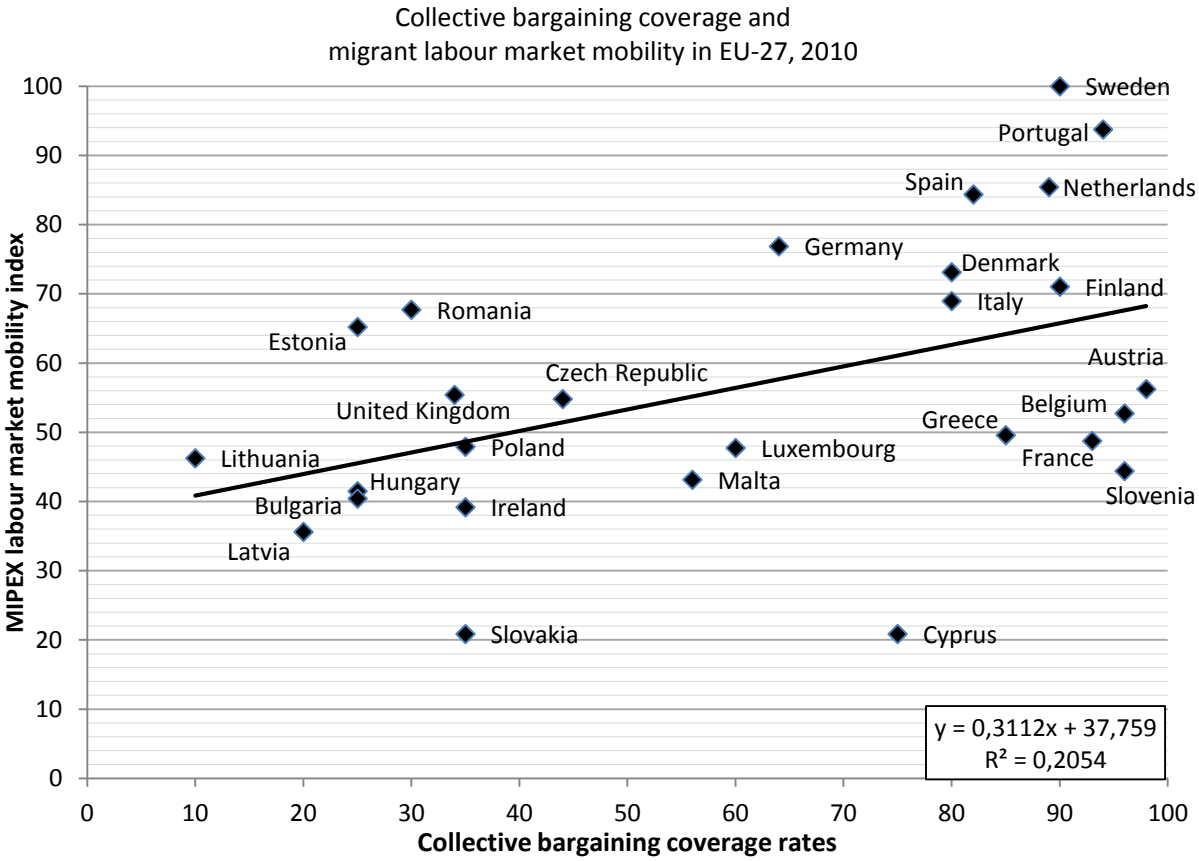
Fragmented bargaining systems allow mass immigration, possibly also precarious labour, but because the labour market under this system is flexible, negative shocks such as the 2008 crisis affect immigrants and nationals more equally. Besides, in this case trade unions can take advantage of immigration as a source of revitalisation.

Despite some EU-level regulations, nation states still show a great deal of diversity in terms of the share of non-nationals within their labour force and in the way the employment of non-nationals is structured and rewarded. One source of this variation is the difference in industrial relations systems. The extent of 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 factors that can all potentially affect the demand for and the integration of the immigrants in the labour market. Indeed, we seem to find a relationship between collective bargaining coverage rates and migrant labour market integration (Figure 9).

We expect that the differences across industrial relations arrangements, in interaction with other variables (e.g., the state of the economy and labour markets, political cycles and national migration policy, public opinion, traditions and attitudes of employers towards migrant workers, etc.) will also signal different implications for the costs and benefits of migration. Strong trade unions have the potential to influence costs and benefits of migration either directly through their action targeting migrant population, or through institutional arrangements, such as 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 on entitlements related to work and welfare system provisions in the receiving countries. Given that migration is often related to non-standard, or precarious employment, particular focus should be given to outlining how industrial relations might be

affecting migration flows, and costs and benefits through affecting precarious employment.

Figure 9: Relationship between collective bargaining and migrant integration



Source: Labour market mobility: MIPEX index (http://www.mipex.eu/download), collective bargaining rates: ICTWSS database (http://www.uva-aias.net/208).

For the costs and benefits of migration, coordinated bargaining means that migrants should receive the same kind of treatment as native employees and therefore migration shall not significantly affect labour market developments (for example, the changes in aggregate demand because of employers' preferences for migrants who are willing to work for lower wages and/or inferior working conditions). The inflow of migrants shall not increase unemployment among the native-born population, because migrants are also covered by collective wage settlements, which precludes "a race to the bottom" where employers take advantage of the willingness of immigrants to accept lower wages. Furthermore, migrants' purchasing power and wages are similar to native workers; and this has positive effects on the receiving country's consumption and GDP. The wage gap between native and migrant workers under coordinated bargaining shall remain marginal or not exist at all.

We systematise the link between migration outcomes and industrial relations institutional framework, based on empirical evidence presented earlier and own

additional research, in Table 9. We include the country studies – Germany, UK and Spain – and in addition consider Sweden as a Nordic country. There the collective bargaining system is particularly well developed which helps us emphasise key differences on the possible relationships between the collective bargaining systems with the levels of migration, and macro and micro-level costs and benefits of migration.

Table 8: Bargaining systems and migration trends

	Sweden	Germany	UK	Spain
Collective bargaining system	encompassing	dualised	fragmented	informal-statist
Overall migration levels	low levels of net economic immigration in the 2000s		high levels of immigration in the 2000s	
Typical sector/ employment type for migrants	equally distributed across sectors	atypical employment in services	services	construction, agriculture, personal services
Benefits for migrants	possibilities for upward mobility, more equal wages	entry to the labour market of formerly excluded (youth, female) groups of migrants	easy entry to the labour market in good times, low levels of labour market segregation	easy entry to the labour market in good times
Benefits for the economy as a whole	maintenance of solidarity and the fiscal base of the welfare state	increasing employment (without disrupting the productivity coalition of core sectors)	flexibility	flexibility
Costs for migrants	difficult for immigrants to find entry points	segregation, no upward mobility	social dislocation in hard times	insecurity in good times, dislocation in hard times
Costs for the economy as a whole	possible atrophy of the system through loopholes (posted workers)	redistributive struggles between insiders and outsiders, wage dumping in certain sectors	pressure to lower wages in the low-skilled sector	loss of tax revenue in good times, social upheaval in hard times

Source: Kahancová and Szabó 2012, see this study also for more details on empirical aspects of industrial relations in the given countries.

In general, coordinated market economies (either with encompassing or with dualised bargaining systems) are associated with lower levels of immigration than the liberal market economy of the UK and the Mediterranean-statist model of Spain. Accordingly, the costs and benefits of migration for the immigrants themselves and for the host societies differ too in these systems.

More specifically, once entry into the Scandinavian labour markets is established, equal wages and upward mobility for migrants is more likely than in the other models. These favourable conditions (relatively low intensity and a non-segregated form of migration) also enable Scandinavian unions to be rather active and successful in organising non-national workers. In the dualised bargaining system of Germany, the mushrooming of atypical jobs in recent years provided employment opportunities for those migrants who were previously excluded from the labour market completely, but this comes at a price of limited upward mobility, and a redistributive struggle between insider (nationals) and outsider (non-nationals) about welfare services. Trade unions are caught up in this divide. Partly because of the divisions of trade unions and partly because of the institutional embeddedness they enjoy, they were not forced to see immigrants as a possible source of organisational revitalisation. In consequence, their record in attracting immigrant workforce lags behind both Scandinavian and British trade unions. The UK with its fragmented bargaining system was one of the main targets of immigration in the 2000s. While there is no clear separation between insiders and outsiders as in the case of Germany, there is some evidence about downward pressure on wages in the low-skilled service sector. Nevertheless, trade unions were quite successful in organising immigrants as part of their revitalisation strategy and the crisis did not impinge disproportionately on migrant workers either. In Spain, migration was a similarly intense process during the 2000s, framed by informality and periodical state intervention. However, crisis effects on immigrants were much harsher, and due to problems of informality and sectoral divides, unions can achieve only partial results in organising immigrant labour.

In general, more encompassing bargaining can preclude mass labour force immigration, but on the other hand facilitates a more balanced outcome of migration for both immigrants and the society as a whole. A dualised system, with a clear institutional separation between insiders and outsiders seems to be the least effective both from the perspective of migrants and trade unions. Besides, if dualism is coupled with the prevalence of informality for outsiders, then migrants are deprived of any possible means of formal representation. Finally and most interestingly, the fragmented systems allow mass immigration of precarious labour, but because the whole labour market is quite flexible, negative shocks such as the 2008 crisis affect immigrants and nationals equally. Besides, the example of the United Kingdom demonstrates that trade unions can take advantage of immigration as a source of revitalisation even in an institutionally adverse environment.

From the policy perspective, policies that would aim at better enforcement of equal rights and opportunities of migrants and native workers would promote easier circulation of labour force present in a country, balance flexibility and migrant rights, and prevent establishment of migrant-dominated occupational enclaves. Labour unions can play a key role on this, even in the context of weak bargaining position. Indeed, existing examples of the work of labour unions (e.g. UK) demonstrate that trade unions even in an institutionally adverse environment can assist migrants in important areas, such as the recognition of qualifications and information sharing on national labour law legal framework, and so facilitate better integration of migrants and costs and benefits of migration to the society and migrant workers.

Box 5.3: IZA Expert Opinion Survey 2012: Experts' view on attitudes of stakeholders towards migration

The survey also sought to identify stakeholders most and least in favour of more liberalised policy as well as the greatest and the smallest beneficiaries of such policy change. About two thirds of the experts identified employers and employers' associations as the group likely to support most as well as to benefit most from a more liberalised migration policy towards EaP countries. Universities, academic and research community and EU institutions were viewed as inclined to such policy shift by more than a third of experts and were generally seen as beneficiaries. While a similar share of experts considered general public as likely to benefit the most (30%), almost two thirds identified public as the least likely stakeholder to support such change. Workers, unions and employees associations are generally seen as opponents and non-beneficiaries of more liberalised policy framework with EaP countries. Interestingly, a good share of experts (33%) sees their respective governments as likely to oppose such policy change.

8. Existing legal frameworks and policies

National-level labour migration legal frameworks and policies vary significantly across the European Union.

They together create a complex system of regulations, characterized by

- *Lack of harmonization across Member States*
- *Lack of transparency of immigration procedures*
- *High pecuniary and non-pecuniary costs of immigration procedures for migrants and administrators*
- *Lack of provisions for tied migrants (including spouses, children or parents)*
- *Limited access of migrants to labour markets, social assistance and services, or other markets, services or institutions.*
- *Insufficient capacity of the administration to deal with various contingencies*
- *Generally reserved approach towards migrants*

While migration policy remains a national competence, based on economic competitiveness but also developmental objectives the European Union has in the recent past advanced policy-making in this area. In the following section we briefly review the key EU directives and assess their goals and, where possible, comment on their functionality and effectiveness. Mobility Partnership Agreements provide an EU-wide tool within which bilateral arrangements can be furthered. These are reviewed at length in the EaP Synthesis Report (Barbone, Bonch-Osmolovskiy and Luecke, 2013) and hence we do not evaluate them here extensively. We then focus at discussing mainly legal frameworks in the five EU countries covered by the country studies and comparatively review their specific approaches towards the EaP countries with respect to visa requirements and labour migration schemes. We evaluate a possible impact of the existing frameworks on the composition and magnitude of flows into these countries.

Similarly to the EaP Synthesis Report (Barbone, Bonch-Osmolovskiy and Luecke, 2013) we note a wide diversity in the existing frameworks. In addition to varied country-level labour migration schemes, differences exist also in the application of EU-wide frameworks, such as the requirements for the provision of long-term term visa in the Schengen area and outside (e.g.. UK). In most cases specific governmental programs (e.g. point systems, quotas, special card systems) do not target specifically EU Eastern neighbours or the Caucasus region but rather apply to third country nationals generally. Migrants from some EaP countries, especially Moldova and Ukraine, may enjoy certain benefits within the framework of special bilateral agreements concluded by each Member State and the EaP governments.

8.1. EU-level migration-related directives

Through a range of recently drafted directives, the EU has advanced its efforts in making migrant entry administratively less burdensome by streamlining procedural aspects of entry and dedicating focus to equal rights and better conditions of migrants.

However, the implementation of several programs, including the Blue Card, falls short of the expectations.

The introduction of the Blue Card program is the flagship EU initiative specifically targeting high skilled workers from third countries. Apart from simplified admission procedures, migrant workers who are Blue Card holders should also have equal access to employment, pensions and social security schemes as well as equal rights concerning recognition of qualifications and freedom of association. Eligibility criteria consist of a valid work contract, necessary professional qualifications and a salary 1.5 (in some cases – 1.2) times higher than the average in the receiving Member State. These relatively strict conditions as well as quotas set on the national levels may hinder skilled labour flows under the Blue Card scheme. While all Member States have transposed the Directive into the national legislations, no statistics are to date available on Blue Card holders to evaluate the scheme. Kahanec and Zimmermann (2011) contend that its strict conditionality continues to project a generally negative attitude of Europeans towards immigration and question its ability to attract high-skilled immigrants effectively. In addition, the Blue Card disadvantages prospective younger migrants who typically start at lower wage scale than the wage criterion defined by the Blue Card. For this reason, amending Blue Card towards selection based on a points system considering criteria such as age, qualifications, or language skills would enhance its usability and effectiveness.

Apart from the Blue Card Directive, the EU framework already ensures easier entry of researchers. The Directive on a specific procedure for admitting third-country nationals for the purposes of scientific research (2005/71/EC), the so-called Researchers Directive, simplifies the admission procedures for third country national having hosting agreement with an EU research organisation. The Directive facilitates mobility by means of withholding the requirement to possess a work permit in order to be admitted to the EU Member State (excluding United Kingdom and Ireland, as well as Denmark). Researchers are entitled to equal economic and social rights regarding recognition of qualifications, working conditions, certain social security schemes, tax benefits and access to goods and services and the right to teach. To date the Researchers' Directive failed to attract a larger number of researchers into the EU, the EaP countries are underrepresented and gender imbalance remains a problem. As already suggested in the European Commission's own evaluation, streamlining of procedures and definitions and enhanced promotion through

mobility partnership and the Global Approach to Migration and Mobility framework can make it a more powerful tool in the key partner countries, including EaP (European Commission, 2011).

Additional important frameworks for facilitating exchange of knowledge are the schemes supporting inflows of foreign students to the EU. With respect to EaP countries, specific instruments in educational cooperation are already in place under the Erasmus Mundus, Youth in Action and Jean Monnet programs. The number of students who come, however, has been generally rather low. This limited success of academic exchange programs is generally attributed to a low level of awareness about EU programs among university students. Until 2010 the EaP countries have made little effort to promote youth mobility on the regional level with international cooperation mainly carried out by individual universities or research groups (Levandovska, 2010). Administrative complications related to recognition of earned credits or degrees after return might be another hindering factor discouraging more students to enter the EU. Starting from 2011 onward, however, significant efforts have been made to improve the situation. Funding for higher education programs such as Erasmus Mundus and Tempus have been increased and, from 2014, mobility from the EaP to the EU are expected to grow even further, modelled after the current intra-EU Erasmus scheme.

The efforts have recently advanced at the EU level with respect to entry, employment and stay of third-country nationals. A number of Directives have been drafted and currently are in the approval or transposition phase. These are summarised in Box 6.1. While they represent a step forward, Directives continue to enable Member States to implement a number of limitations which might be hindering immigration and making it costly for the migrants or companies interested to hire foreign workers.

Box 6.1: EU migration-related directives under the negotiation process or in the transposition phase

Directive on a Single Application Procedure for a Single Permit (2011/98/EU) simplifies administrative procedures for third country migrants by establishing a single application procedure for permits to reside and to work in an EU member state. It grants entry, re-entry and stay in the issuing Member State, free movement within this state and exercising of the activities authorized under the single permit, but migrants cannot seek employment across member states freely. The duration of the permit and the conditions under which it is granted, renewed and cancelled remain to be decided by the Member States. In addition, several key categories of third country national are excluded, such as seasonal workers, transferred workers, and posted workers. Migrants are granted equal treatment with nationals in important areas, including working conditions, recognition of diplomas, social security, healthcare, or tax benefits. Member states can decide to limit access to housing and unemployment benefits. Due to these limitations, it is considered only a small step forward (Pascouau & McLoughlin, 2012). Directive is in the transposition stage and its benefits cannot be yet analysed.

Directive on Entry and Residence of Third-Country Nationals in the Framework of an Intra-Corporate Transfer targets managerial and qualified employees (2010/0209) with an assignment letter or training agreement. The Proposal includes an abolition of market test and proposes fast track application procedure for residence permit valid up to 3 years. The Directive does not provide for equal treatment in terms of education, vocational training, public housing and counseling services, but grants equal rights to recognition of qualifications and freedom of association. The Directive currently awaits first reading in the European Parliament.

Proposal for **a Directive on Common Entry and Residence Conditions for Third-Country Seasonal Workers** (2010/0210) is currently under discussion among the European institutions. It is aimed at promoting circular migration and intends to establish fast track procedure for admitting third country seasonal workers who have binding job offers for up to 6 months in any calendar year. Apart from positive provisions such as equal treatment, the possibility to change the employer and procedures for making complains about discrimination, it includes safeguards such as a specified salary and guarantee of accommodation. The right to determine the number of workers remains Member States' competence. The Directive introduces a multi-seasonal permit or a facilitated re-entry procedure for a subsequent season with the aim of encouraging legal migration for seasonal work. This should promote circular migration, flows of remittances and transfer of skills and investment to third countries, thus reducing poverty and contributing to the European Union's development policy. Elsewhere in the report we will highlight that circularity is difficult to maintain and that supportive framework in home countries need to be developed in order to facilitate more suitable conditions of economic and social existence of migrants in both countries.

8.2. Visa Policy Instruments

Entry costs, both pecuniary and non-pecuniary, for non-EU migrants to enter the European Union are very high.

Visa policy instruments are complex, administratively burdensome, and migrants lack information how to deal with various requirements in the process of obtaining the visa.

This tends to dis-incentivize migrants from seeking legal routes of entry and employment, sometimes diverting them to irregular modes of entry.

All EaP migrants fall under specific EU regulations concerning entry and employment in the EU territory. Entry rules are harmonized in the specific Visa Code[21] applying Schengen *acquis* and regulating entry of third country nationals.[22]

[21]European Union. 2009. "Visa Code". http://europa.eu/legislation_summaries/justice_freedom_security/free_movement_of_persons_asylum_immigration/jl0028_en.htm

Even though the general rules are harmonised, Member States have the authority to set their own regulations concerning the visa issuance procedure, for example, a list of required documents, the ways to apply for a visa, the waiting period for a decision, etc. Visa schemes in Schengen are similar with respect to requirements for short-stay visa, but differ for national long-term visa for the purposes of employment. For example, the German system requires that the applicant delivers in addition to an employment contract and a medical insurance also a proof of qualification (see Table C.1 in Annex C).

Visa issuance practices are often subject to critique and seem to contradict the goals of the EU Visa Code. For example, according to the survey conducted among visa applicants in Ukraine in 2010, problems such as a lack of a unified set of documents necessary for visa application in different EU Consulates, long visa processing duration, high visa costs (especially where the Consulates resort to the services of intermediary visa issuance companies), lack of available information (particularly concerning categories of citizens who are exempt from visa fees), lack of information on refusal reasons, inadequate requirements concerning documentation and a frequently discourteous disposition of visa officials towards visa applicants result in a deteriorating image of several EU Member States and a rise in illegal visa issuance practices through intermediaries (EWF, 2010). To respond to these set-backs, visa facilitation agreements can be of crucial importance for enhancing freedom of movement and consequently employment opportunities for migrants from EaP countries. To date these have been signed with Moldova, Ukraine and Georgia.

Importantly, accession of the new member states to the Schengen zone had direct implications on visa policies between these countries and the Eastern Neighbourhood region. Labour migrants from former Soviet Union countries lost their residence and employment rights and were forced to re-apply for visas or residence permits. Some CEE countries (i.e. Poland, Slovakia, and the Baltic States) have since then gradually waived fees for national long term visas for Ukrainian or Belarusian citizens. As of July 2012, European Commission approved for Ukrainian citizens further facilitation of visa issuance procedures by enhancing a list of citizens' categories eligible for free-of-charge multiple entry visas valid for a year, as well as simplifying the list of necessary documents to be presented at the Consulates. The provision on long-term visas valid up to five years was also made more concrete, as previously Consulates mostly avoided issuing such long-term visas. The changes to the Visa Facilitation Agreement are now waiting for the approval by the European Parliament and ratification process.

To sum up, entry costs for non-EU migrants are very high: legal employment is expensive and administrative procedures are cumbersome. There are strong indications that this might be dis-incentivizing migrants from seeking legal routes of

[22] Great Britain, Romania and Bulgaria have national rules for entry as non-participants of the Schengen Agreement.

entry and employment (cf. Fedyuk 2012). We now turn to discuss national-level labour migration policies.

8.3. National-level labour migration policy frameworks

The existing labour migration policy frameworks are diverse and differ in their scope, and EaP targeting.

Existing legal frameworks shape migration patterns by influencing length of stay, routes of entry and sectoral allocation.

Overly complicated and pricy administrative procedures for gaining work permits appear to be increasing the share of illegal immigrant labour, especially if demand in low-skilled sectors is strong.

With weaker enforcement frameworks and high shares of irregular migrants countries opt for amnesties and regularisation to legalise migrants. This helps to prevent migrants from being exploited in the shadow economy and generates welfare benefits for the receiving country, but it also may result in a moral hazard problem.

Complementary policies in the welfare domain (e.g. pension portability) are necessary to facilitate temporary migration flows and the benefits from such migration.

National-level policies targeting high-skilled migrants have had limited success and Europe lags behind in ability to attract highly skilled migrants.

In the area of highly-skilled migration, further scope exists for the EU to push for a systematic and more open immigration policy.

Migration policy framework currently applied in individual EU countries represents a range of different approaches. Table 10 summarises the types of general schemes which are currently implemented in the five EU countries analysed in depth. With the exception of the Blue Card, these are national-level specific frameworks. We discuss the key schemes and their targeting of the EaP countries, their changes over time and possible impact on the EaP migration.

Table 9: Policies towards third country nationals in five EU counties: general overview

Country	Visas	Work permits	Occupational quotas and/or shortage list	Blue/ green card	Points system	Self-employment	Provisions for staying students	Other
Italy	+	+	+	+/-	+	+	-	-
Germany	+	+	-	+/*	-	+	+	-
Poland	+	+	+	+/-	-	+	+	Local border agreements; Card of a Pole
Spain	+	+	+	+/-	-	+	+	-
UK	+	*	+	-/-	+	+	+	-

Note: As of 2012: (+) currently operating, (*) previously applied, but not anymore, (-) not applied in the country. *Source*: Own compilation based on the websites of relevant national Ministries (Ministry of Interior/Labour Policy), IOM (2009) and EMN (2011). UK Border Agency, Kahanec and Zimmermann (2011), Deloitte Comparative Study. Immigration 2010-2011.

Italy regulates the inflow of labour migrants via a central quota system introduced in 2002. The quota system is organised by country of origin and according to the sectors of labour shortage and regional needs. There are also preferential quotas set for migrants from the countries that signed bilateral cooperation agreements with Italy on migration, out of EaP region Georgia is included. The quota levels cannot embrace all third country nationals wishing to legally work in Italy. It is restrictive for new migrants, as the system includes foreigners already residing in Italy. Moreover, the employment scheme attached to the quota system remains rather complicated. Combined these factors tend to encourage irregular migration. Through frequent amnesties and regularisations, the governments have regularised high numbers of Eastern European migrants. In spite of importance and positive contribution of EaP migrants to the Italian economy, EaP targeted efforts remain limited. Italy has been strengthening relations with non-EU Mediterranean countries and Sub-Saharan countries, dedicating lower priority to the EaP region. One of the innovations introduced by Italian government in 2012 is the point-based residence permit (for general purpose) (Baron, 2012). Since March 2012 all new migrants to Italy are obliged to sign the integration agreement with a relevant Police department on the basis of which they will be issued a residence permit in less than a year subject to acquiring sufficient number of points (points to be given for the knowledge of Italian language, Constitution, public institutions, civic life in Italy after completion of educational courses). The effect of this new instruments remains to be seen (Marchetti, Piazzalunga and Venturini, 2013; Gordon 2012).

In ***Germany*** the current framework does not contain particular facilitations for fostering access from the EaP countries. EaP nationals are subject to visa restrictions according to the Immigration Act of 2005. Due to a relatively restrictive nature of the procedures for gaining employment in Germany, study route and family reasons route are important avenues for the entry of EaP migrants. Of those EaP migrants with a work permit, the majority were categorised as unskilled workers. It is not clear whether these immigrants lack human capital, or whether their credentials cannot be transferred. The Recognition Act of April 2012 has instituted a standardised procedure to recognise all qualifications acquired abroad. While foreigners have to bear the costs of the recognition fees, applicants do not need to submit any supplementary documents and presence in Germany during the recognition process is not necessary. This might facilitate further work-related immigration and ensure better matching at lower costs of migrants and lesser mismatch and illegal work. Germany has valid Mobility Partnership Agreements with Moldova (2008), Georgia (2009), and Armenia (2011). Stimulated by the European Commission also dialogues with Moldova and Ukraine on readmission and visa facilitation agreements are in place, and a perspective to start such dialogues also with Armenia and Azerbaijan (Biavaschi and Zimmermann, 2013)

Poland has taken a different route than a majority of EU member states. In view of the country's skill shortages which arose after EU accession, Poland liberalised the

legislation on employment of third country nationals by introducing simplified declaration-based employment procedure. Such procedure allows working in Poland for a limited period of time without the necessity to hold a permit. Importantly, it discriminates in favour of several EaP countries: Ukraine, Belarus, Moldova, Georgia, and targets also Russia. Currently the main entry gate for migrants from the EaP, it has been successful in channelling previously irregular employment into regular forms, and in filling labour market gaps in national labour market, especially in seasonal sectors such as agriculture, gardening and construction. Simplified procedures are also applied to recent university or high school graduates (graduation within the last 3 years) from Polish schools, the EEA and the Swiss Confederation. This impacts positively Ukrainian and Belorussian students who belong to the most populous groups. Specific additional categories of EaP citizens do not need work permits: those of Polish descend or in possession of a Polish Card; language teachers, trainers, journalists, athletes, artists, and researchers.

Parallel to this, a standard work permit procedure is in place. Granting of work permit is subject to a dual labour market test (on wage and shortage) with the aim to prevent any substitutive effects of Polish workers by foreign workers, and results from the experience of large unemployment prior to the 2004 labour market improvements. The labour market test does not need to be performed if a list signalling a specific skill shortage has already been published by a voivode (official representative of the government at the regional level) or if a foreign national has already been employed with a specific employer. For members of management boards and posted workers a separate legislation applies. Due to relatively little immigration prior to the late 2000s, Poland so far does not face social or economic problems resulting from former immigrant inflows. It has challenges ahead stemming from designing immigration and integration framework that will effectively manage inflow of immigrant labour into filling the existing demand, which is likely to continue (Duszczyk, Góra and Kaczmarczyk, 2013).

Spain does not have any EaP-specific migration policy in place, but has seen a major change in migration legal framework in the past decade. Up to 2000, Spain's immigration policy for non-EU migrants was very restrictive; in order to gain legal status, immigrants were required to acquire work and residency permit which then restricted them geographically and to a particular activity. In spite of contributing to social security, they were not immediately eligible to any social benefits. Restrictive framework contributed to high numbers of irregular immigration whereby migrants would enter on tourist or short-stay visa and then prolong their stay illegally. To regularise their status, several regularisations and amnesties took place.

Spanish labour admission channels were reformed in 2004 in response to the structural weaknesses of the Spanish labour market and to the pressure exerted by employers. The aim of the reform was to establish a migration model based on the interconnections among different policy fields related to immigration, such as the management of regular migration flows, the fight against irregular migration, the

strengthening of border controls, the relationships with third-world countries and the integration of immigrants (Finotelli 2012). Currently two parallel regime exist: the General Regime (*Regimén General*) in which individuals are recruited based on an employer's application to hire a certain worker. This employment route is subject to a labour market test by the relevant Public Employment Service. Due to high administrative burden, irregular employment is said to remain attractive (Finotelli 2012). The Contingente Regime allows hiring a foreign worker without the labour market test for filling occupations included in the "Catalogue of Hard-to-Fill Occupations" (*Catalogo de ocupaciones de dificilcobertura*). The workers have to possess the credentials that are necessary according to the Spanish law to execute the required activity. The inflows through Contingente Regime have declined significantly during the crisis. Moreover, regime relies on bilateral migration agreements which to date have not been concluded with any EaP country. Country experts evaluate that the current provisions do not seem fit to yield any substantial influence on migration patterns and to generate benefit from (EaP) migration into Spain. In response to the crisis in 2008, the Spanish government introduced the *Plan de Retorno Voluntario* – a pay-to-go system which gives unemployment benefits to non-EU nationals who agree to return home. It has not fostered return migration as much as expected (Farré and Rodríguez-Planas, 2013).

EaP migration to the ***United Kingdom*** has been greatly affected by recent migration policy reforms as well as liberalisation of the British labour market to intra-EU migrants. The fall in inflows of migrant workers from Eastern Partnership countries (especially Ukrainians) is principally related to a refocusing of the Seasonal Agricultural Workers Scheme (SAWS) and Sector Based Schemes (SBS) and the introduction of the Points Based System (PBS) in 2008. Although the SAWS and SBS only provide temporary or seasonal employment in agricultural and related sectors, the restriction of these schemes to just Bulgarian and Romanian migrants leave limited opportunities for migrant workers from the EaP countries.

The introduction of the PBS in 2008 introduced a "shortage occupation list" which pertains to Tier 2 of the PBS – medium and high-skilled migrants with a job offer. The shortage list is prepared by Migration Advisory Committee (MAC) which combines statistical information with qualitative information to determine shortages of skills that are strategic to the UK economy and cannot be filled by natives or EU citizens. Future opportunities for migrants from outside the EEA, including those from EaP countries, will therefore exists in skilled occupations identified by MAC. The PBS, with its focus on migrant skills, is likely to foster immigration of younger and more skilled migrants into the UK. As such it impacts migration patterns and seems fit to increase benefits from immigration for the UK, with the associated risk of brain-drain effects for the countries of origin.

While the UK government has signed a range of bilateral agreements with Eastern Partnership countries, these do not cover special arrangements for migrant labour. A trend towards limitations on the entry to the UK of migrant labour according to the

increasingly constrained points-based system, coupled with moves to limit progression towards permanent settlement and eventual citizenship is evident. In light of this, it is highly unlikely in the short to medium term that the UK will consider opening up its labour markets to workers from the Eastern partnership countries (Clark and Drinkwater, 2013, Milio, 2012).

Table 10: Overview of key temporary migration frameworks

Country	Relevant migration framework	Skill focus	Sectoral focus	Impact on and relevance for EaP countries	Quota
Italy	Central quota system	Labour shortage based	Labour shortage based, high quota granted to care sector	Bilateral agreement in place with Ukraine and Moldova; Care sector regularisation in 2009	Yes. Defined at the beginning of the year, but is lower than the actual labour demand
Germany	Residence permit qualifying for employment (no specific framework applicable to EaP)	Qualifications have to be proven	Labour market test to establish shortage, tied to job offer	Employment related entry remains difficult	No.
Spain	"General regime"	Based on labour market test	Based on labour market test	EaP migrants can enter through this legal route	No
	"Contingente regime"	Based on list of shortage occupations	Based on list of shortage occupations, since crisis mainly fishing and naval sectors	EaP countries are not among the countries where migration agreements were signed to manage the flows within Contingente	Based on existing shortage, limited to countries with which Spain signed bilateral migration agreements
Poland	Simplified employer-declaration-based procedure	Not given centrally, based on employers' demand	Not given centrally, based on employers' demand	Has served as major channel for hiring seasonal workers from EaP	No quota, but selective by sending countries: Ukraine, Belarus, Moldova, Georgia, Russia
	Work permit	Subject to labour market test	Subject to labour market test	Serves as a more cumbersome procedure for possible entry of EaP migrants	No
UK	Seasonal Agricultural Workers Scheme (SAWS)	Low-skilled, as defined by agrisector needs	Scheme for agricultural sector	EaP migrants are largely excluded	Quota is set, and 40% earmarked to EU2 migrants, 60% to students from non-EEA countries
	Point-based system	Skilled workers	Occupations defined based on skill needs by Migration Advisory Committee	Favors skilled EaP migrants, Tier 2 most used, but access for EaP migrants is tight	Cap on total migration Tier quota changes based on regular evaluations of skill needs.

Source: Based on EU country studies and Finotelli 2012, Ministry of Labour and Immigration in Spain 2009, Milio 2012, Gordon 2012.

The EU country study experts proposed a range of policy interventions in which they identified scope for further scaling up of EaP migration or improvement in the outcomes. We summarise these specific interventions in Table 12 below. Importantly, these recommendations call for improvement in existing migration frameworks, suggest possible development of new schemes, but also point to the importance of accompanying non-migration policies, such as migrant integration and equal treatment policies and their enforcement.

Table 11: Recommended policy changes: EU country study findings

Country	Scope	Policy Recommendations
Italy	General	- demand for unskilled labour will continue, currently there is a mismatch between the quota system and levels of applications - selection and hiring of immigrants should be reformed as well as the process of integration in the Italian labour market - temporary & circular forms of migration should be supported
	EaP migration specific	- EaP migrants in Italy do not receive adequate attention - more attention should be given to the problematic issues such as employment in the informal economy, channelling of migrants into sectors perceived as "jobs for foreigners", and unfavourable employment situation in the care and domestic sector of female EaP migrants
Germany	General	- higher immigration should be stimulated, along with mobilisation of internal capacities
	EaP migration specific	- Visa facilitation agreements for highly qualified EaP workers - temporary migration schemes - improving migrant selection and matching by improved system of recognition of foreign qualifications
Poland	General	- development of an institutional framework for the management of immigration flows
	EaP migration specific	- special attention to Ukrainian immigration in the development of an institutional framework for the management of immigration flows
Spain	General	- correct design, regulation and implementation of migration policies to ensure better matching between immigrant skills and labour market needs - clarification of legalisation processes for those already in the country - employment equity policies and anti-discrimination policies - reduction of the informal sector and structural change of the Spanish economy
	EaP migration specific	- suggestion to establish bilateral agreements with EaP countries to cover the anticipated demand in the care sector
UK	General	- employer interests should be better taken into consideration in the "shortage occupation list"
	EaP migration specific	- bilateral agreements are suggested with certain EaP countries and for particular sectors (e.g. agriculture), but scope for more extensive EaP immigration is limited politically and economically

Source: EU country studies

8.4. Frameworks for highly skilled migrants

With respect to **frameworks for high-skilled migrant**, the Member States apply different criteria in their definitions of high-skilled workers. Generally, three types of criteria – education level, salary level or skill level – are used. These differences might transpire in the details of the implementation of EU directives, but especially in framing of national policies targeting high-skilled migrants (Kahanec and Zimmermann 2011). In most countries certain categories of workers are defined as high-skilled which typically includes managers, executives, researchers, university professors, artists, and athletes.

Table 13 reviews the key approaches to high-skilled immigration in five EU countries. All countries with the exception of the UK apply special provisions for researchers (Researchers' directive). In addition to this and the Blue Card directive launched in a recent past, several national-level initiatives exist. Germany stopped its Green Card in 2004, but now has in place preferential treatment for highly-qualified workers and their family members who do not need to undergo a market test. Fast-track procedures for some categories of highly skilled migrants are applied in Italy and Spain, while Italy also implements quotas on highly skilled immigrants (with the exception of nurses). In Poland a new immigration policy was agreed in 2012 by the Cabinet, and awaits a more specific development. The UK in its Tier 1 targets "high value" migrants, and defines certain skilled categories in its Tier 2 system.

Regardless of efforts made on the EU level and by individual Member States research shows that shortage of skilled labour in the EU still persists and that the EU is unable to attract innovative human capital (Kahanec and Zimmermann 2011, Kahanec 2013). The newly proposed Directives discussed earlier have taken steps in the right direction. Their implementation practices and impact should be evaluated in order to amend them as needed. At the same time, it is clear that country-specific frameworks for highly skilled migrants in the EU have had limited effectiveness. Those applied in the past showed generally poor performance which then led to their abolition (e.g. Green Cards in Germany, Czech Republic). Companies in different sectors find it challenging to recruit on international markets which is some sectors, such as IT, might be hindering their innovativeness potential (Beblavý and Kureková, 2012). In the area of highly-skilled migration, further scope exists for the EU to push for a systematic and more open immigration policy.

Table 12: High-skilled migration frameworks in five EU countries

Country	Policy description
Germany	- Special provisions for researchers (Implementation of the Directive 2005/71/EC); - Permanent residence and exemption of Federal Employment Agency Assessment for highly- qualified workers and their family members (job offer, salary criteria); - Green Card for professionals in IT sector/engineers was used in 2000-2004
Italy	- Special provisions for researchers (Implementation of the Directive 2005/71/EC); - Quotas for highly skilled (except nurses) - Fast track procedures for managers (intra-corporate transferees) and highly qualified personnel (professional and education criteria);
Poland	- Special provisions for researchers (Implementation of the Directive 2005/71/EC); - Draft new immigration policy adopted by Cabinet of Ministers (July 2012) lists special treatment for highly skilled migrants (to be further elaborated in procedures)
Spain	- Special provisions for researchers (Implementation of the Directive 2005/71/EC); - Fast track procedure for highly qualified migrants (exemption of the market test, however, certain limitations exist concerning Spanish employers; salary and education criteria)
UK	- Tier 1 – several categories for high value migrants + Exceptional Talent; General for highly skilled (currently closed to outside applicants); Graduate Entrepreneurs (subject to quotas); - Tier 2 - for skilled migrants: + General; Ministers; Sportspersons; Intra-Corporate Transferees

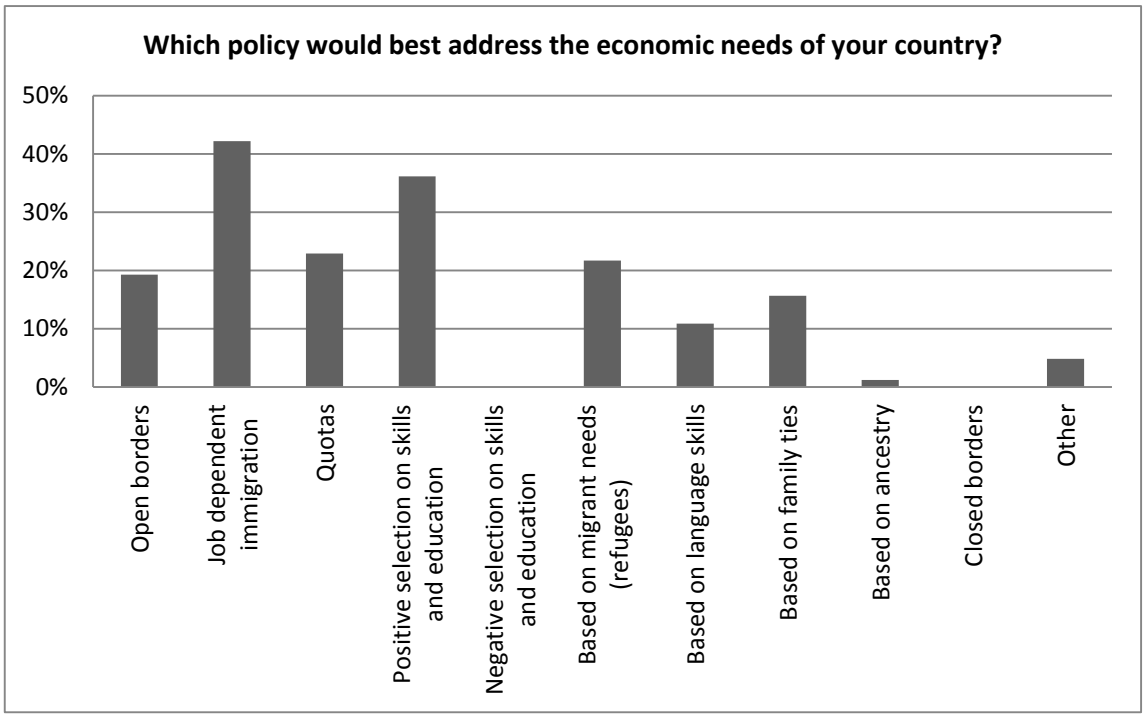
To sum up, the existing labour migration policy frameworks are diverse and differ in their scope, and level of EaP targeting. This can partially be explained by different labour market structures, different migration histories vis-à-vis the EaP countries as well as the impact of financial crisis which has in some countries led to more restrictive migration policies. As partially shown above, existing legal frameworks shape migration patterns by influencing length of stay, routes of entry and sectoral allocation. First, countries with weaker enforcement frameworks and high shares of irregular migrants (especially Italy and Spain) have used amnesties and regularisation to legalise migrants, many of which are of EaP origin. Regularisations help both to prevent migrants from being exploited in the shadow economy and to generate welfare benefits for the receiving country. They may, however, create a moral hazard problem. Such migration policy framework has been found to lead to informal channels of recruitment based on personal networks or direct referrals from current employees (IOM 2013a). Second, those regulations that promote temporary and circular arrangements seem very beneficial to the respective countries, yet create many demands on migrants. Migrants are more prone to exploitation and dependence on employer, face isolation, unfavourable working conditions, and

problems of transferability of pension and other welfare entitlements. Therefore, in order for temporary migration to bring most benefits to host countries as well as to migrants, supportive institutional framework in home as well as host country is essential, especially in the areas of social rights and responsibilities (e.g. pension portability schemes). Fourth, overly complicated and pricy administrative procedures for gaining visa and/or work permits seem to be increasing the share of illegal immigrant labour, especially if demand in low-skilled sectors is strong. Fifth, a success of policies aimed at attracting workforce in innovative sectors has been to date limited, but new national-level efforts have been put forward in some of the countries.

A range of directives responding to the critical points raised in this discussion have recently been implemented or are under debate at the EU level. They generally seem to be shifting the policy in a good direction by simplifying administrative procedures and putting migrant workers of different categories on a more equal footing with national workforce. However, their precise forms and effective implementation will be crucial to truly make a difference. In addition, it seems that scope exists for further advancement in highly-skilled immigration to which Blue Card directive might have only a limited contribution. While EaP migration to high-skilled occupations and sectors is so far limited, human capital endowments of these countries are favourable.

Box 6.2: IZA Expert Opinion Survey 2012: Preferred immigration policies

The experts were asked to identify up to three types of policies which they considered to be able to most efficiently address the economic and labour market needs of their country. In the expert community, complete liberalisation of migration policy has considerable support and was marked by nearly a fifth of experts. The most favoured policies, however, were job dependent immigration based on labour market selection (42%), followed by positive selection on skills and education (35%), and quota system (23%). More than a fifth considered as favourable a policy based on migrant needs, i.e. open to refugees (22%). No expert considered closed border policy or policy based on selection of less skilled migrants as efficient for the needs of their economies.



9. Potential costs and benefits of increased mobility under alternative scenarios

This section of the report focuses on two related tasks: to assess potential future flows from the EaP countries and to evaluate their macro-economic effects in the context of different scenarios of economic development and migration policy framework.

9.1. Preliminaries

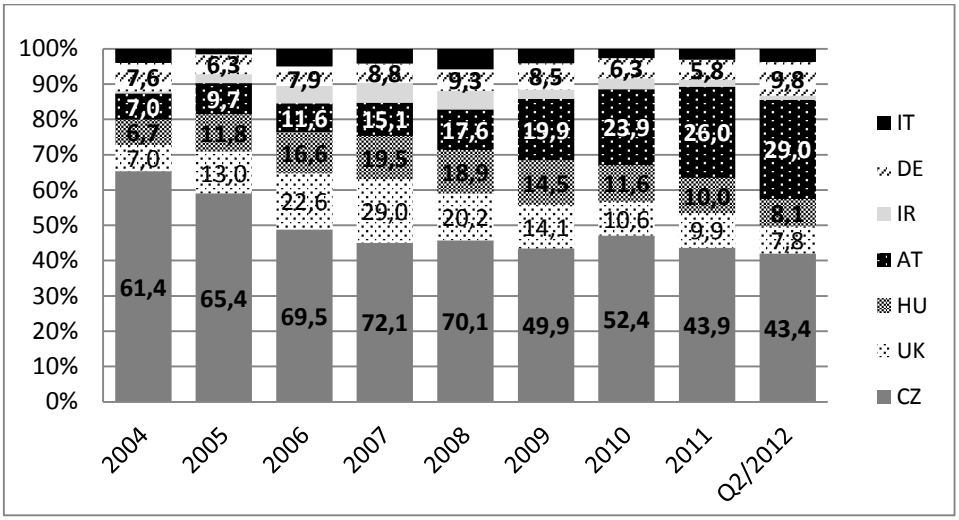
In spite of the adverse demographic situation and alternative migration destinations such as the Russian Federation, there is a definite migration potential towards the EU in the EaP.

Due to restrictive policies towards EaP migrants in the EU this potential remains in large part latent.

Before we set out to project migration flows from the EaP countries to the EU, we review the lessons about the effects of liberalisation of migration flows from the experience of new Member States upon their accession to the EU in 2004 and 2007. As the first lesson, there is a latent supply of migrants in Central and Eastern Europe that can be triggered by changes of migration policy in receiving countries. While this supply is limited by adverse demographic developments in most of CEE, liberalisation of migration policies in the destination countries leads to additional East-West migration flows. Therefore, to reliably project migration flows, we need to take into account demographic projections, which measure the migration potential, *as well as* the economic prospects, the effects of migration policy changes and the multiplier power of migrant social networks. These latter variables measure the costs of migration as well as the pull and push factors, and thus significantly affect migration flows.

Another important lesson is that such potential exists even if there is an alternative destination with a liberal migration policy, like Russia is for most of the EaP countries. If we consider the case of Slovakia, with a decades-long tradition of migration to the Czech Republic, and its experience after 2004, we see that the liberalisation of migration policy has the potential to unleash substantial *additional* migration flows and *change the shares* of destination countries in favour of newly liberalised ones. This is illustrated in Figure 10.

Figure 10: Migration from Slovakia, main destinations



Source: Slovak Statistical Office based on LFS
Notes: IT = Italy, DE = Germany, IR = Ireland, AT = Austria, HU = Hungary, UK = United Kingdom, CZ = Czech Republic

An additional insight into the migration potential in EaP countries is offered by Danzer and Dietz (2013) who study the INTAS data that map migration intentions and their directionality in the EaP countries, except for Azerbaijan. While self-reported migration intentions do not perfectly predict actual migration decisions, they add to our understanding of the migration potential and its directionality across the EaP. More specifically, the INTAS dataset contains a variable that measures whether the respondent intends to migrate abroad, and if so, where to. The message transpiring from Table 14 is clear: significant proportions of EaP populations intend migration for at least some months or years and, excluding Armenia, the EU distinctly dominates Russia as the intended destination. These findings indicate that the migration potential in the EaP countries targeting the EU is well-defined, but given the restrictions on migration flows to the EU it remains in large part latent.

Table 13: Migration intentions across the EaP countries

Country		male	female
Armenia	EU, some months	13.6	5.7
	EU, some years	10.2	3.9
	Russia, some months	24.6	7.1
	Russia, some years	16.1	5.3
Belarus	EU, some months	23.4	18.2
	EU, some years	13.3	8.3
	Russia, some months	12.0	2.9
	Russia, some years	6.3	0.8
Georgia	EU, some months	10.1	13.3
	EU, some years	10.1	11.4
	Russia, some months	3.6	3.0
	Russia, some years	3.6	2.7
Moldova	EU, some months	35.3	30.9
	EU, some years	27.5	23.2
	Russia, some months	16.2	12.4
	Russia, some years	5.4	5.2
Ukraine	EU, some months	20.9	22.2
	EU, some years	9.5	11.5
	Russia, some months	7.4	5.2
	Russia, some years	2.0	2.4

Source: Calculations courtesy of Alexander Danzer, Danzer and Dietz, 2013. Notes: Per cent of the respondent population. No data for Azerbaijan.

9.2. Estimation of potential flows from the EaP countries under different migration scenarios

Based on an established prediction model taking into account

- *demographic variables*
- *economic variables*
- *policy variables*
- *network effects (diaspora)*

we project modest migration flows from the EaP to the EU until 2020.

Our analysis shows that between 2011 and 2020 we can expect the following net migration flows from the EaP countries to the EU14:

- *under the baseline scenario of no policy change on average about 100 thousand migrants per annum (1.03 million migrants over 2011-2020),*
- *liberalisation of short-stay visa leads to essentially no additional migration,*
- *labour market liberalisation is projected to result in on average 100 to 300 thousand additional migrants per annum (0.96 to 3.03 million additional migrants over 2011-2020), depending on economic conditions as well as migration policies (selective or full liberalisation).*

Correspondingly, for the EU8 we can expect:

- *under the baseline scenario of no policy change on average about 40 thousand net migrants from the EaP per annum (0.4 million migrants over 2011-2020),*
- *essentially no additional migrants if short-stay visa is liberalised,*
- *selective labour market liberalisation is projected to result in little additional migration, up to 8 thousand migrants per annum; full liberalisation is projected to result in on average 37 thousand additional migrants per annum – this implies between 0.08 and 0.56 million additional migrants over 2011-2020, depending on economic conditions as well as migration policies (selective or full liberalization).*

Most migrants are predicted to go to Italy and Germany, and originate from Ukraine.

Drawing on Fertig and Kahanec (2013), this section aims to assess potential future migration flows from EaP-countries to the EU by utilizing the experiences of the EU enlargement wave of 2004. Similarly to the recent enlargement context, income gaps between the EU countries and EaP countries are substantial. The average GDP per capita (pc) in purchasing-power-parity (PPP) in these countries amounts to slightly more than 6,870 USD in 2009 according to IMF's World Economic Outlook Database (September 2011). However, there is quite a large heterogeneity within this country

group. On the lower end of the distribution, Moldova displays a GDP per capita in PPP of around 2,860 USD, whereas Belarus forms the upper end with slightly more than 12,700 USD according to official statistics. For comparison, the average GDP per capita in PPP of the EU in 2009 amounts to almost 29,700 USD, that of the Euro-area to even more than 31,800 USD. In 2009 the two countries with the lowest income per capita among the new Member States, Bulgaria and Romania, attained GDP per capita PPP comparable to Belarus, at 12,600 and 11,900 USD, respectively.

According to IMF's World Economic Outlook Database (September 2011), the six Partner countries exhibit a population of almost 76 million people in 2009 (i.e. around 15% of the EU), of which about 46 million live in Ukraine. This approximately equals to the number of citizens living in EU8 countries when joining the EU in 2004, when Poland was the most populated and the other accessing countries were relatively smaller in population size.

To estimate potential future flows from EaP countries to the EU27, we conduct a double extrapolation exercise – in time and in space. Before that, we use a well-established model to estimate the determinants of immigration from the 2004 accession countries to the EU. Specifically, we estimate the structural relationship between migration flows and its determinants using an adaption of the model of Hatton (1995) to time series-cross sectional data (for a detailed description see Annex D and Fertig (2001)).

This model is estimated using net-migration rates from the EU8 to the EU15 without Luxembourg[23] (EU14 for short) which were constructed from Holland et al. (2011) and updated using Eurostat Population Statistics. Due to a lack of real wage information, wage rates are approximated by per-capita-income (PCI) in purchasing power parities to account for differences in living costs. Ignoring participation issues we approximate employment rates as 100 per cent minus the unemployment rate since employment rates are not available for all countries. Our sample comprises information for the time period from 1998 up to 2010. Hence, we have six years before and six after enlargement to identify the effect of enlargement on observable migratory movements from the EU8.

Determinants of EaP mobility

Our estimation results (see Table D.1 in Annex D) show that economic conditions in the destination countries play an important role in explaining observable migration flows. Both the PCI-ratio between the destination and sending countries as well as employment rates in the EU8 exhibit a significant relationship to net-migration. The higher the PCI-ratio, the higher are observable flows, all other things equal. The

[23] Within the EU15 Luxembourg is by far the smallest (in terms of population) and simultaneously also the richest country. To avoid biased estimation results for the per-capita-income variable Luxembourg was therefore excluded from the sample of destination countries. In quantitative terms this exclusion is negligible since the stock of migrants from the EU8 living in Luxembourg amounts to merely 0.4% in 2009.

opposite holds for the employment rate in the origin countries, which affects migration flows negatively. By contrast, the employment rate in the EU14 seems to be of minor importance. Hence, our results suggest that migrants' income opportunities in the destination country compared to the home country have a systematic impact on their decision to leave the country.

However, estimation results also clearly indicate that the costs of migration are important. In line with the literature, the stock of migrants in the destination country exhibits a statistically significant positive impact on net-migration which suggests that existing migrant networks in the destination countries – immigrant diasporas – help to attract further migrants.

Furthermore, the set of sending-country-specific intercepts suggest that migration costs vary by country and react to policy. The results of the preferred model (specification 3 in Table D1 in Annex D) suggest that country-specific migration costs exhibit a largely different pattern before and after accession of the EU8 countries. Controlling for a range of economic and social variables, before accession the Czech Republic, Hungary and Slovenia display significantly and substantially higher migration rates to the EU14 than Poland, whereas those of all other sending countries do not differ systematically from Poland. We also observe that beyond the effects on migration costs of liberalisation of migrants' access to EU15 labour markets, which were positive, accession did not significantly affect migration rates (and thus costs of migration) for citizens of most EU8 countries. The results show, however, that migration costs decreased for Latvians, Lithuanians and to a lesser degree also Estonians after accession. The inclusion of the initial stock of migrants from home in destination country and country-specific intercepts also controls for time-invariant factors affecting migration flows, including the existence of alternative destinations.[24]

Short-term variation in economic variables does not seem to matter too much. The estimated coefficients of the changes in economic indicators are all statistically insignificant, except that of the employment rate in the destination countries. It is worth noting that the significant negative impact of the lagged net-migration rate suggests that immigration to the EU14 is varying around a stable level. Thus, unless dramatic changes in economic, social, political or policy-related conditions occur, there is no reason to expect immigration to the EU to be ever increasing in the future.

Remarkably, the largest single impact on observable flows can be observed for policy indicators. Hence, policy regimes regulating access to destination labour markets matter more than migration costs and economic conditions. Whereas selective liberalisation does not have a significant effect on net-migration, the number of years of free movement unfolds a significant and quantitatively substantial impact on observable flows. Controlling for other factors, this impact follows an inversely u-

[24] To the extent that past migration flows reflect the opportunity costs of choosing various alternative migration destinations and their effects remains structurally stable, the inclusion of the initial stock of migrants from home in destination country enables our model to account for the effect of Russia as an important alternative destination for EaP migrants.

shaped pattern, i.e. immigration increases in the first years after opening up labour markets completely, reaches its maximum in year four and declines thereafter.[25]

By contrast to that, liberalisation of short-stay visa is found to have essentially no effect on migration flows. Although EU8 countries enjoyed visa-free regime vis-à-vis the EU15, Belgium, Denmark, Finland, Ireland and the UK for various periods of time introduced short-stay visa for Slovak citizens prior to Slovakia's accession to the EU. We estimated a separate econometric model including a variable indicating whether short-stay visa was applied or not. The analysis showed that inclusion of the visa variable had essentially no effect on the model, and was statistically insignificant. This result enables us to conclude that liberalisation of short-stay visa for EaP citizens will not lead to any noticeable additional immigration to the EU. In addition, this finding tells us that our models well describe the structural features of migration flows under a visa-free regime (as was the case for most EU8 countries prior to their accession) but also if short-stay visa is applied, as is the case today for EaP citizens.[26]

Scenario description

To perform forecasts of the immigration potential from EaP-countries to the EU we use the long-run coefficients from specification 3 in Table D.1 (Annex D). Since no common migration history involving different policy scenarios or transitional arrangements between the EaP countries and the EU is available, we perform a double extrapolation exercise – over time and across space. For this we invoke some identification assumptions which have to hold *a priori* to ensure that the forecasts are valid. The most important of such assumptions is that the structure, which quite accurately describes the determinants of migration from the EU-8 to the EU14, remains stable in the future and also holds for the behaviour of future migration from the EaP-countries. In addition, we need to make assumptions about the development of the exogenous variables in our model (i.e. GDP and employment). Finally, we have to invoke an assumption for country-specific migration costs. Given that the likelihood that the estimated structural relationships describe migration decisions will decrease over time, we restrict our projections to cover not more than a decade after the last observable data point.

The forecasts are performed for different sets of assumptions combined into scenarios. In all forecasting scenarios we assume GDP growth rates summarised in Table 15 for the EaP-countries.

[25] Although we control for a range of economic variables, we cannot completely exclude the possibility that the timing of this reversal is partly driven by the onset of the Great Recession.

[26] Short-stay visas were reintroduced for Slovak citizens in reaction to inflows of migrants who applied for refugee status upon immigration. This could lead to a positive correlation of between immigration and introduction of short-stay visa; however, our migration data generally do not include these asylum seekers.

Table 14: Assumed annual growth of per-capita-income in EaP-countries (in per cent)

	2011-2014	2015-2019	2020-2030
Armenia	4	5	5
Azerbaijan	2.5	4	5
Belarus	4	3.5	3.5
Georgia	5.5	6	6
Moldova	5	6	6
Ukraine	3.5	4	4.5

Source: EaP country experts.

Furthermore, EU14 and EU8 countries are divided into three groups according to their labour market situation in 2010:

- High employment countries: Austria, Denmark, and the Netherlands
- Medium employment countries: Belgium, the Czech Republic, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Poland, Portugal, Slovakia, Slovenia, Sweden and the United Kingdom.
- Low employment countries: Estonia, Latvia, Lithuania and Spain

The argument of convergence is applied when making assumptions about employment trends in the country groups under different general growth assumptions. Based on this argument we assume less favourable figures for employment *changes* in high-employment countries than in low-employment countries.

For the migration forecasts we combine these assumptions into nine scenarios for different time horizons. The nine scenarios are defined as summarised in Table 16. All the scenarios assume that none of the EaP countries becomes a member of the EU during the studied period. We distinguish three regimes of liberalisation of access to EU labour markets for EaP migrants: no liberalisation (status quo), selective liberalisation (e.g. liberalisation of some professions and/or simplification of procedures[27]), and full liberalisation (no work permit needed).

[27] As was the case when some EU15 countries partly liberalised access to their labour markets for citizens from new Member States, while still applying transitional provisions. This includes selective liberalization by Belgium that made it easier to get work permits in sectors of the economy where jobs were hard to fill (nurses, plumbers, electricians, car mechanics, builders, architects, accountants, engineers and IT workers in the Brussels Region); liberalization measures adopted by Denmark permitting workers from new Member States to look for a job for six months, and providing them with residence and work permits if they succeed in obtaining a full-time job complying with Danish standards; and Germany, which in spite of generally restrictive policy simplified the procedures and facilitated acquisition of work permits for citizens from new Member States in practice. See also Table 2.

Table 15: Design of modelling scenarios: economic performance and migration policy matrix

	Economic developments (% change)	Migration policy		
		No liberalisation	Selective labour market liberalisation	Full labour market liberalisation
2011-2014 **Short-term European recession scenario**	Per-capita-income in EU14: 0% Employment in EU14: -0.3% for high employment countries; -0.1% for medium group; 0.2% for low employment group.	**Scenario 1**	**Scenario 2**	
2015-2020 **Medium-term I, weak EU recovery, weak job growth**	Per-capita-income in EU14: 1% Employment in EU14: -0.1% for high employment countries; 0.1% for medium group; 0.3% for low employment group.	**Scenario 1'**	**Scenario 3**	
2015-2020 **Medium Term II, sustained EU recovery, stronger job growth**	Per-capita-income in EU14: 2% Employment in EU14: 0.15% for high employment; 0.3% for medium group; 0.6% for low group.	**Scenario 1"**	**Scenario 4**	**Scenario 5**
2021-2030 **Long-term sustained growth**	Per-capita-income in EU14: 2.5% Employment in EU14: 0.15% for high employment; 0.3% for medium group; 0.6% for low group.		**Scenario 6**	**Scenario 7**

Migration forecasts

Migration projections based on the projection model outlined above are summarised in Table 7.4. For sake of comparability with EU's experience with 2004 and 2007 enlargements we first focus on migration projections to EU14 countries only. Starting the forecasts in 2011 (actual migration data are available until 2010) and assuming medium country-specific pre-accession migration costs (i.e. applying the mean of the estimated sending-country-specific intercepts for the EU8 to all EaP-countries) yields forecasts of approximately 1.03 million incremental migrants until 2020 if the status quo is maintained and no liberalisation takes place. Various scenarios of

liberalisation lead to 0 to 3.03 million incremental migrants from the EaP to the EU14 depending on the assumptions on economic development (weak EU recovery versus sustained EU recovery) and policy regulations. In particular, we project essentially no incremental net migration if visa regimes (but not access to EU labour markets) are liberalised. Under labour market liberalisation we project 0.96 to 3.03 million incremental migrants to the EU14 from 2011 to 2020, depending on the scope and timing of labour market liberalisation. For example, under the scenario of selective liberalisation of access to all EU labour markets until 2020 and gradual recovery in the EU we project about 1.40 million incremental migrants to the EU14 over the decade (i.e. 140 thousand per annum).

We separately present the results for projected migration flows from EaP to EU8 countries, as we acknowledge that these projections are based on a non-trivial assumption that the structural model describing migration from the EU8 to the EU14 is valid also for migration from the EaP to the EU8. Under the baseline status-quo scenario about 400 thousand migrants are projected to set out from EaP countries to the EU8 between 2011 and 2020. Over the same period the projected incremental migration flows from the EaP to the EU8 are projected to be modest, with EaP migrants actually leaving several EU8 countries under a range of scenarios. For example, in case of selective liberalisation and gradual recovery (Scenario 2+4), of EU8 countries only the Czech Republic and Slovenia, the two most affluent countries among the EU8, are expected to still retain Ukrainian diasporas in 2020 (*circa* 275 thousand in the Czech Republic and 36 thousand in Slovenia). Under the scenario with most liberalised labour markets strong economic performance in the EU (2+5), EU8 countries are projected to attract about 566 thousand additional migrants over 2011-2020.

Table 16: Projection result under proposed scenarios, EU14

Net migration to the EU14 from:	Baseline net migration*		Incremental effects of policies on net migration						
	Scenario 1+8	Scenario 1+9	Visa liberalization	Scenario 1+3	Scenario 2+3	Scenario 1+4	Scenario 2+4	Scenario 2+5	Scenario 1+5
Armenia	65,731	65,792	No effect	135,390	166,049	161,870	168,972	244,523	212,773
Azerbaijan	Negative	Negative	n/a	Negative	Negative	Negative	Negative	Negative	Negative
Belarus	Negative	Negative	n/a	Negative	Negative	Negative	Negative	Negative	Negative
Georgia	87,283	87,366	No effect	75,496	105,770	99,868	109,880	216,253	184,492
Moldova	32,730	32,798	No effect	75,474	97,253	92,491	100,589	186,799	163,814
Ukraine	845,779	846,706	No effect	675,795	972,091	743,222	1,021,571	2,381,376	2,069,431
EaP-countries*	**1,031,523**	**1,032,662**	**No effect**	**962,155**	**1,341,163**	**1,097,451**	**1,401,012**	**3,028,951**	**2,630,510**

* Only non-negative values. Predicted emigration from Azerbaijan and Belarus exceed the 2010 stock of migrants in the EU14 countries in most cases. The projections for the baseline scenarios 1+1' and 1+1" are based on pre-accession data only.

Unsurprisingly, in all scenarios the bulk of migrants from the EaP-countries stem from Ukraine since it is – in terms of population – the largest among all sending countries under investigation. The share of immigrants to the EU14 from this country in all EaP migrants varies between 68% and 82% depending on the respective scenario (Fertig and Kahanec, 2013). Another observation is that whether or not the EU will recover in the second half of the 2010s or its economy will remain sluggish plays little role for migration flows, also because of a relatively small difference in terms of GDP growth between the respective scenarios.[28]

These flows compare well with the ones observed between countries from CEE that entered in 2004 and 2007 and EU15. We predict about 1.4 per cent of EaP countries' populations to move to the EU14 during the period 2011-2020 in the baseline scenario. In addition to this, we predict essentially no incremental migrants under short-stay visa liberalisation only, and about 1.3-4.0 per cent of EaP population *additionally* moving to the EU14 over 2011-2020 in case of liberalisation of EU14 labour markets (depending on the respective scenario). As a share in EU14's population these figures represent just about 0.25 to 1 per cent over the decade until 2020. These appear to be rather modest numbers, compared to the experience of EU2, where *incremental* outmigration over the decade *preceding* their accession (1997-2006) reached about 4 per cent of source countries' population, and further accelerated after their accession.[29] About 2.1 per cent of source countries' populations left the EU8 over the period 2000-2009.

For the purposes of evaluation of the effects of the projected migration flows, we narrow down the multitude of possible scenarios into a set of archetypal scenarios representing certain paradigmatic approaches to mobility in the European Union. We in particular consider three distinct scenarios assuming different degrees of labour mobility liberalisation in the medium term horizon (2010-2020). None of the scenarios assumes that any of the EaP countries will join the EU within the next 10 years, which would imply a free movement of workers across borders. However, we allow for visa liberalisation and a gradual liberalisation of the access to EU labour markets for EaP citizens. The three scenarios we consider are specified as follows:

(i) **Closed Europe "Fortress"**
This is a "no policy change" scenario which envisages that all EU countries maintain restrictions on access of workers from non-EU countries, as is the case currently. With respect to economic developments, we rely on sustained EU recovery scenario with stronger job growth.[30] This scenario best approximates the status quo in migration policy today. This scenario encompasses also the case with visa liberalisation, as it has been shown to

[28] Compare e.g. scenarios 2+3 vs. 2+4.
[29] Own calculations based on Holland et al (2011) data.
[30] For example, the latest forecast by NIESR (as of Feb 2013) envisages a modest recovery in Europe over the next years, with an average growth rate at 1.7 per cent materialising over 2015-2019 in the Euro Area (and 1.9 per cent for the EU27).

have no effects on incremental migration flows. In relation to Table 16 this scenario represents a combination of scenarios 1 followed by 1".

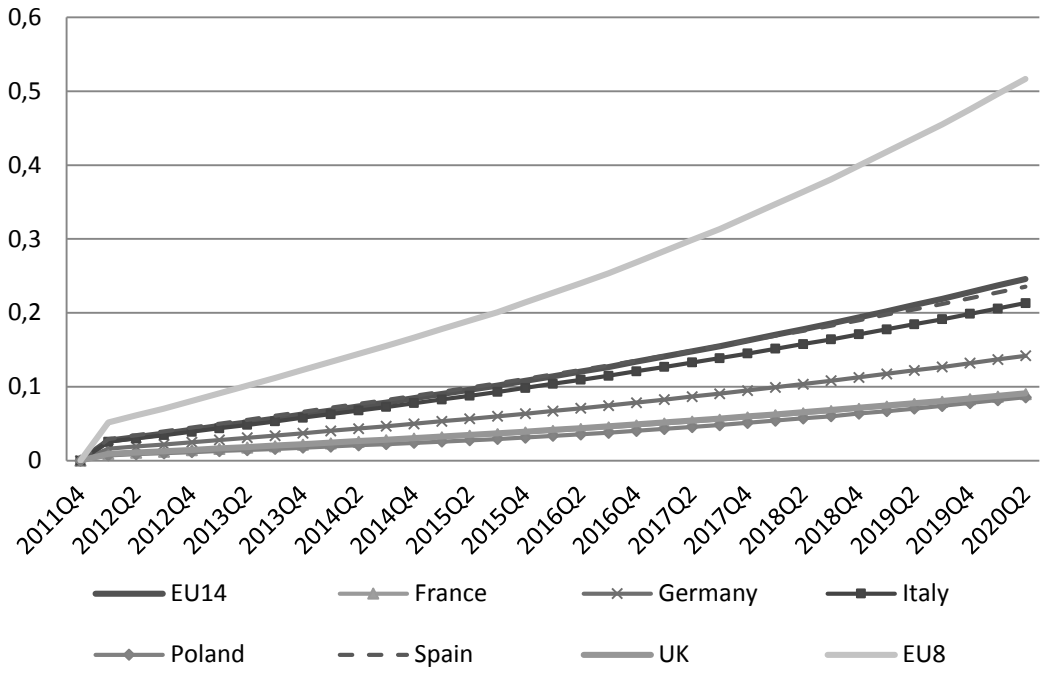
(ii) **Cautious Europe**
It is assumed under this scenario that the EU members allow for selective liberalisation of their labour markets. Sustained economic recovery in the EU is assumed to characterise economic developments. This scenario corresponds to scenario 2 followed by 4 in Table 16.

(iii) **Progressive Europe**
This scenario assumes two periods of increasing liberalisation of labour markets: selective liberalisation until 2015, followed by full liberalisation over the period 2015-2020. Scenario 2 followed by 5 in Table 16 correspond to this scenario.

Before we present the macroeconomic impacts, we discuss migration flows under the three archetypal scenarios in somewhat greater detail. We start with a no-policy change scenario – Closed Europe, and then introduce more liberal labour market policies which result in higher inflows of migrants. Under the "Closed Europe" scenario we generally observe modest inflows. In absolute terms, over the period 2011-2020 one can expect about 1.45 million people migrating from the EaP countries to the EU25 (minus Cyprus, Luxembourg and Malta), with about 120 thousand of them choosing Germany as their destination country, 65 thousand potentially moving to the UK, and 35 thousand moving to Poland. The largest outflows of people are expected to materialise from Ukraine (see discussion above).

In relative terms, expressed in per cent of domestic populations, the projected stocks of migrants from the EaP in the EU countries in 2020 are modest under "Closed Europe" scenario. They correspond to about 0.39 per cent in the case of Germany, about 0.51 per cent in the case of Spain, and about 0.70 per cent in the case of Italy in 2020. The largest immigrant stocks in relative terms, over 1 per cent of domestic population, materialise in the case of the smallest countries – Estonia, Latvia, Lithuania, as well as Slovenia and Ireland. The Czech Republic, Slovakia and Finland may expect migration inflows of slightly less than 1 per cent of their population until 2020. See incremental cumulative flows over 2011-2020 in Figure 11.

Figure 11: Migration flows from EaP countries to the EU (cumulative), "Closed Europe"

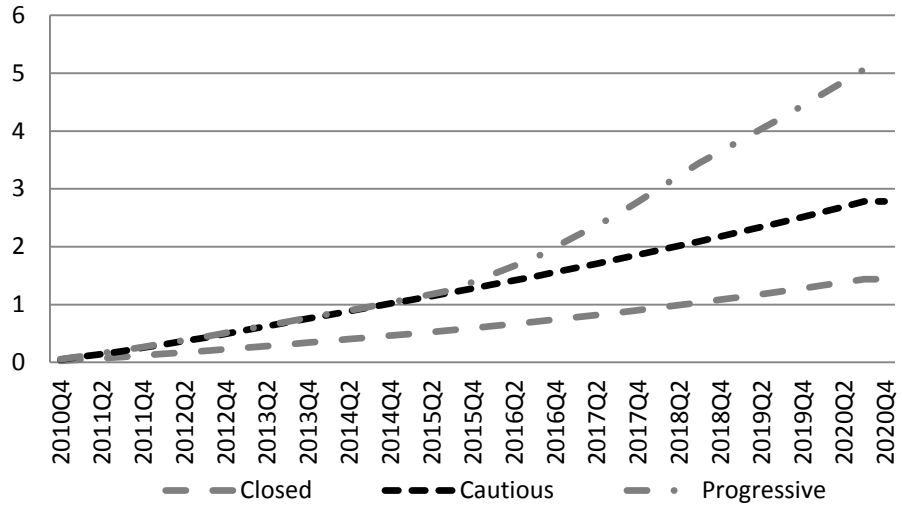


* Per cent of host country population

Assuming a more liberalised policy towards potential movers from EaP countries, the number of migrants would increase. Figure 7.3 depicts the scale of potential migration from the EaP countries to the EU under the scenarios "Cautious Europe" and "Progressive Europe". We observe several interesting findings. First, as can be expected, selective as well as full labour market liberalisations lead to additional migration flows. One exception is that EU-wide selective liberalisation does not increase migration flows to EU8 countries. The reason for the modest additional inflows to EU8 countries is the relatively low impact of selective liberalisation in combination with our assumptions on economic developments. The EaP countries are assumed to grow faster than the EU8; hence, the relatively small advantage of the EU8 countries vanishes sooner than that of the EU14 countries. From the EU-wide perspective, selective liberalisation is projected to lead to about two times larger migration flows than under the "Closed Europe" scenario. A more progressive approach to labour market liberalisation leads to larger but still moderate inflows when compared to other mobility in the EU. Importantly, under all scenarios migration flows will start to subside around 2018-2019, and thus the effect of liberalisation is temporary and migration flows are expected to stabilise after a relatively short period of time.

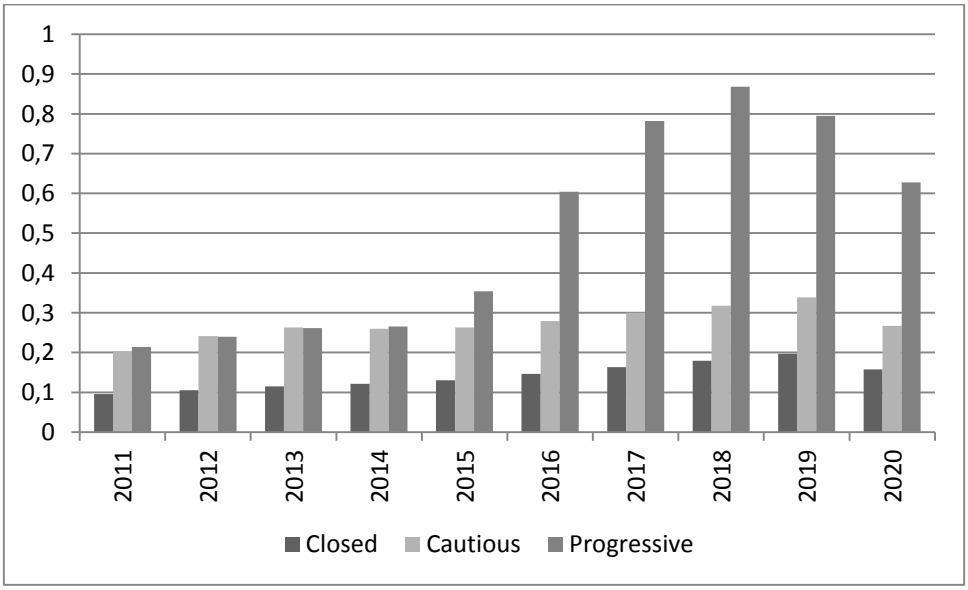
Figure 12: Projected inflow of EaP nationals to EU25 under three scenarios

a. EU14 and EU8 as a whole



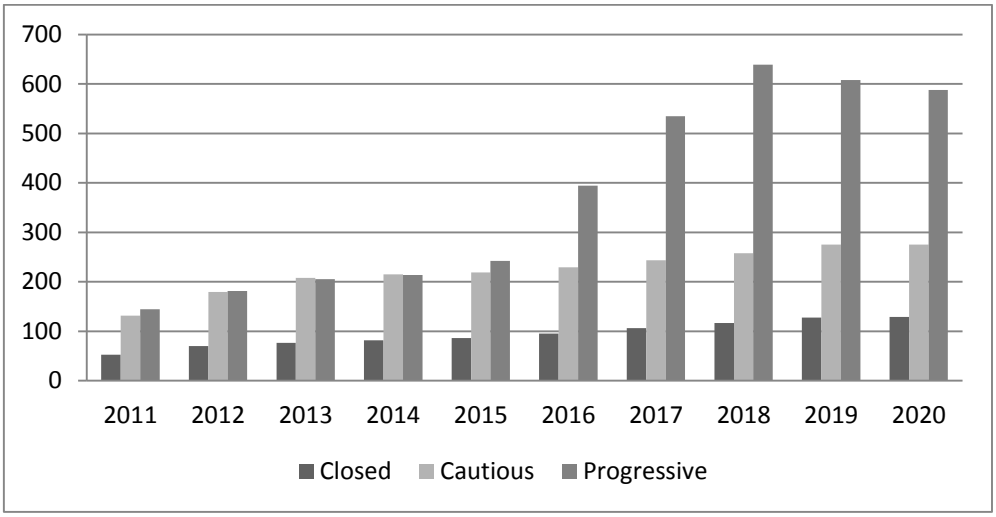
Notes: Stocks, in million

b. EU14 and EU8 as a whole



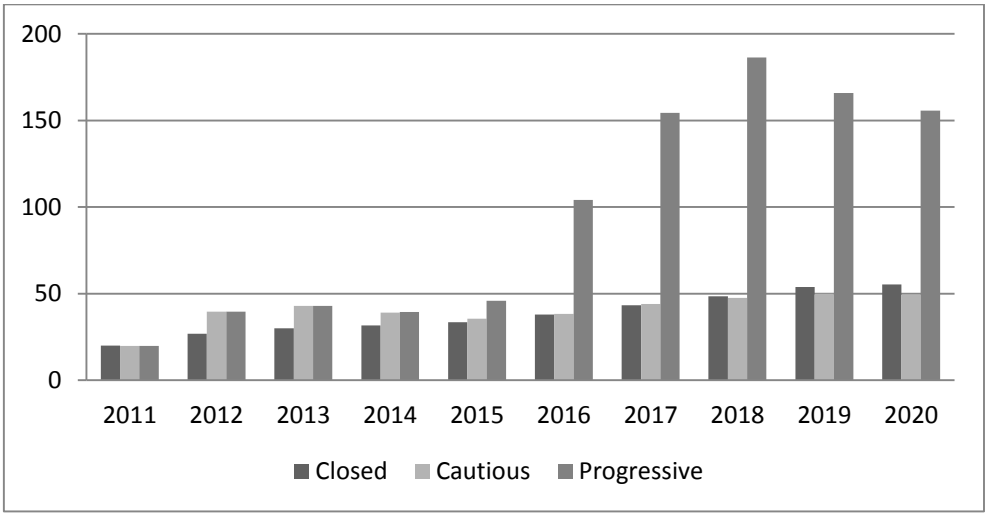
Notes: Flows, in million

c. EU14



Notes: Flows, in thousand

d. EU8



Notes: Flows, in thousand

9.3. Potential economic effects of projected flows

Using an established NiGEM macroeconomic model, we simulate the effects of projected migration flows on EU Member States. In the baseline scenario "Closed Europe" we find

- *Positive effects on GDP and GDP per capita, reaching 0.129 percentage points in the EU14 and 0.296 percentage points in EU8 above the no-migration scenario by the end of 2020.*
- *Anti-inflationary effects, attaining -0.15 percentage points in the EU14 and –0.297 percentage points in the EU8 by 2020.*
- *Very small effects on unemployment, increasing it by 0.009 percentage points in the EU14 and 0.058 percentage points in the EU8 by 2020.*

Under cautious and progressive Europe scenarios the magnitude of the effects increases, yielding

- *0.307 percentage point increase of GDP in the EU14 and 0.868 percentage point increase of GDP in the EU8 by 2020 under "Cautious Europe" scenario,*
- *0.490 percentage point increase of GDP in the EU14 and 1.919 percentage point increase of GDP in the EU8 by 2020 under "Progressive Europe" scenario.*

In this section we study the macroeconomic effects of migration from the EaP countries to the EU27 under the three archetypal scenarios selected above. A range of indicators is looked at, in particular the effect of immigration from the EaP on GDP, inflation and unemployment changes. The analysis is undertaken using a global macro-model NiGEM. The methodological approach is based on a series of model simulations, following the approach adopted by Holland et al. (2011), Barrell, Riley and Fitzgerald (2010), and Barrell, Gottschalk, Kirby and Orazgani (2009). NiGEM is a large-scale quarterly macroeconomic model of the world economy. The key parts of the model relevant to the simulations of migration flows from Eastern Partnership countries are the production functions and the labour markets in each of the countries (Barrell and Dury (2003), Barrell, Becker and Gottschalk (2003), Al-Eyd, Barrell, and Holland (2006)).

Most OECD countries are modelled separately (about 50 countries), and the rest of the world is modelled through regional blocks: Latin America, Africa, East Asia, Developing Europe, OPEC and a Miscellaneous group mainly in West Asia. This means that almost all EU countries, which will be investigated in this section, are modelled individually; the only exceptions are Luxembourg, Cyprus and Malta. Countries of the Eastern Partnership are modelled within the block of Developing Europe.

By incorporating the models for individual countries and country blocks into the global context, we ensure that any international movements of labour or capital, or

any policy shifts have, via links between countries, their impacts on all economies. For example a migration-driven change in demand in one country will, through trade and competitiveness channels, affect GDP in all of its trading partners. The model is essentially New-Keynesian in its approach, in that agents are presumed to be forward-looking, but nominal rigidities slow the process of adjustment to equilibrium. The same theoretical structure is applied to all the countries in NiGEM, except where clear institutional or other factors prevent this. This ensures that variations in the properties of each country model reflect country specific differences only, emerging from estimation rather than different theoretical approaches. A fuller description of the model functionality, of the production functions and the labour market blocks of the model is provided in Annex E.

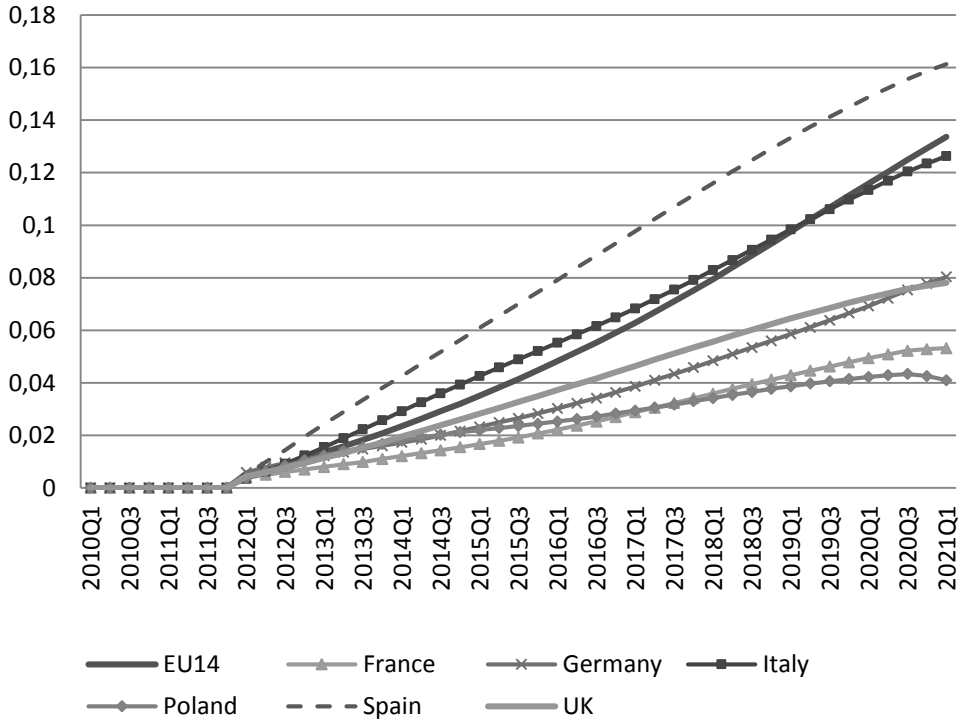
Simulation results for potential macroeconomic effects

Figure 13 shows results for our starting-point scenario "Closed Europe" as presented in details above. The inflow of migrants increases the population of the host country.[31] As a result, GDP in the receiving countries increases. As the inflow of migrants results in a permanent increase of the number of immigrants, the change in output is permanent as well. Immigration puts a slight downward pressure on prices and a small upward pressure on unemployment.

[31] For the purposes of the simulations we assume that all new migrants will be labour migrants and will find jobs in the destination countries. In this respect the reported effects are upper bounds of true effects.

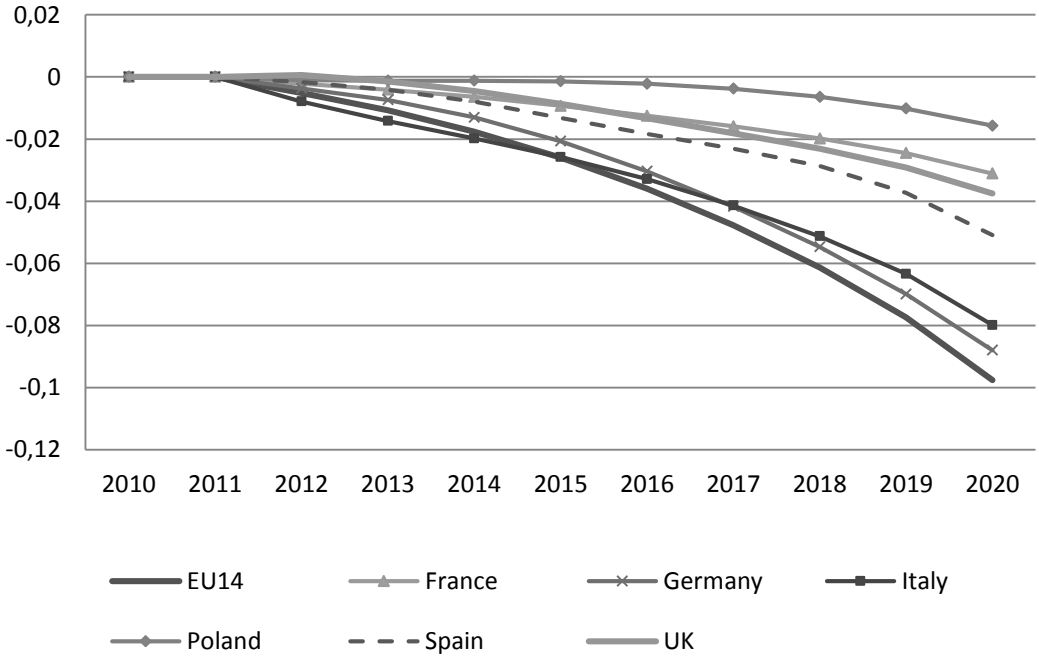
Figure 13: Closed Europe – simulated migration effects

a. GDP



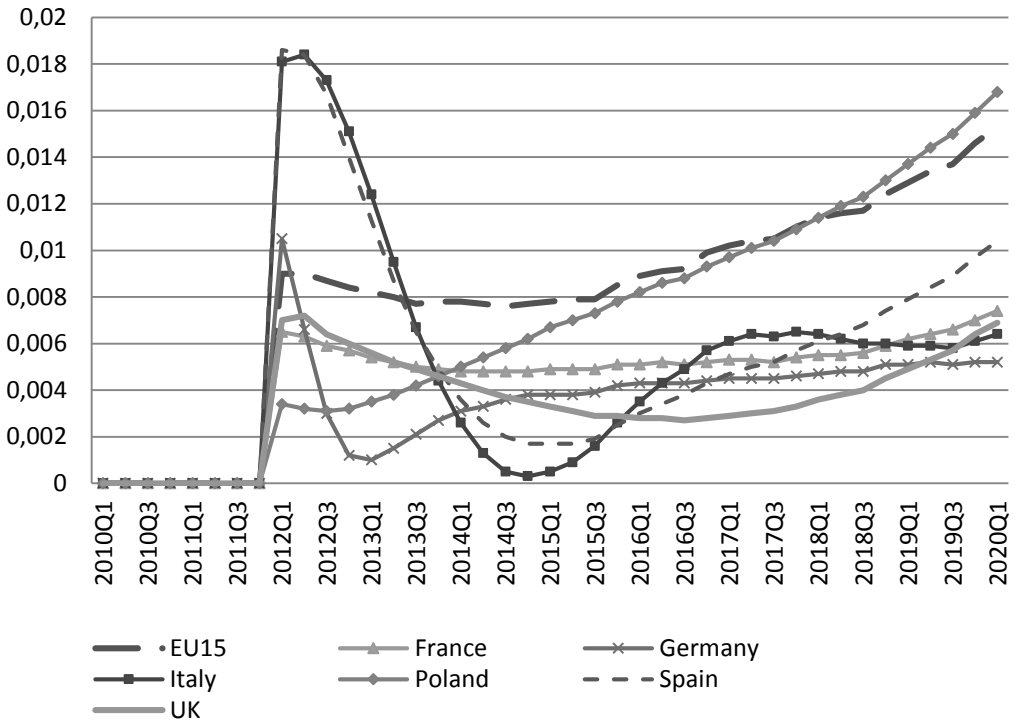
Notes: in percentage points

b. Price level



Notes: in percentage points

c. Unemployment



Notes: in percentage points

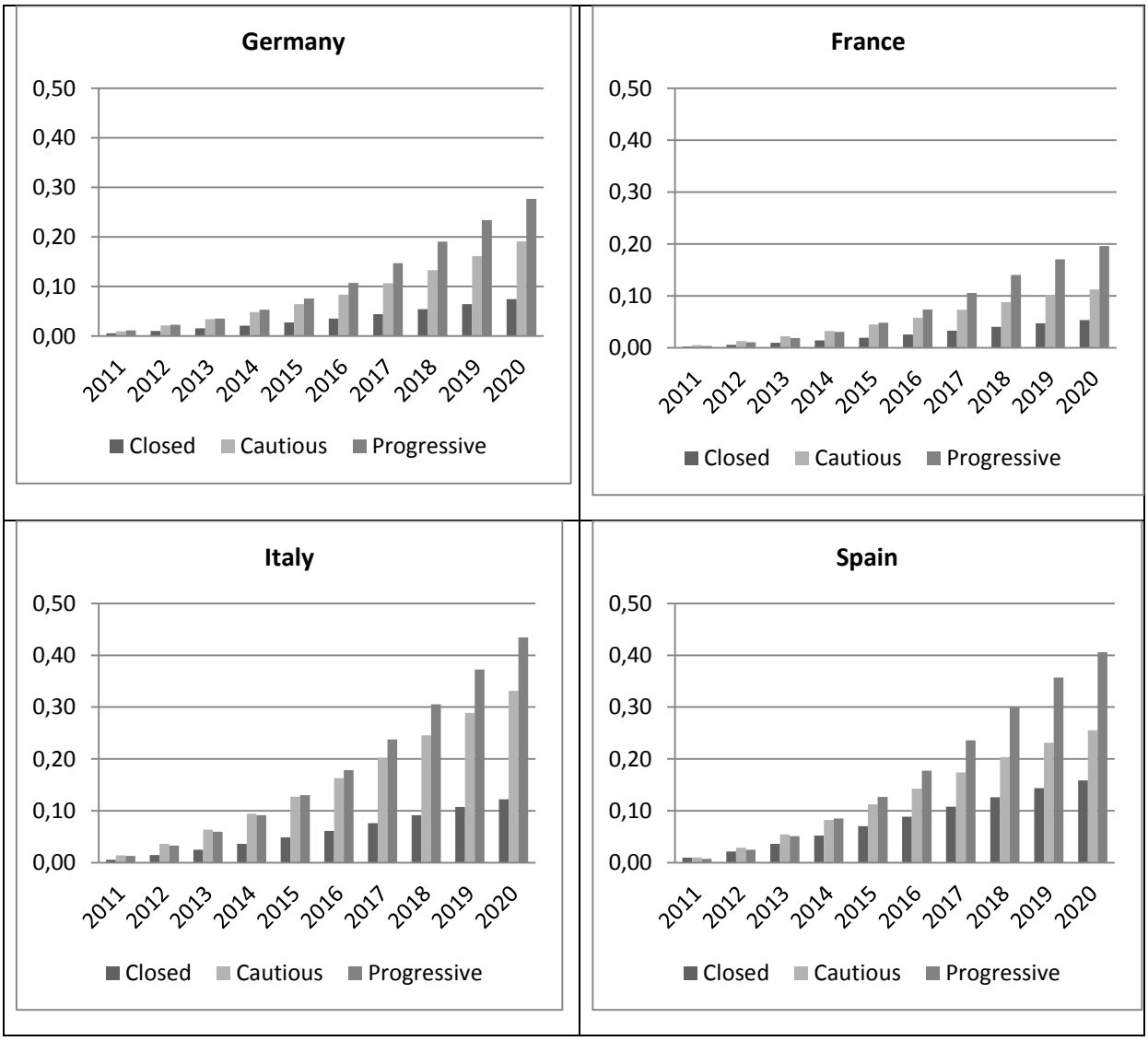
The response of aggregate output is directly proportional to the scale of the shock to domestic population. Smaller countries, whose populations increase most in relative terms, respond more strongly. Estonia, Latvia and Lithuania as well as Slovakia and the Czech Republic are more responsive in relative terms than the big economies of Germany, Italy, France, Spain, and Poland. The average aggregate GDP increase in the smaller economies amounts to about 1.5-2 per cent in 2020, while the larger European economies expand by a mere 0.1 per cent – see Table F.1 in Annex F.

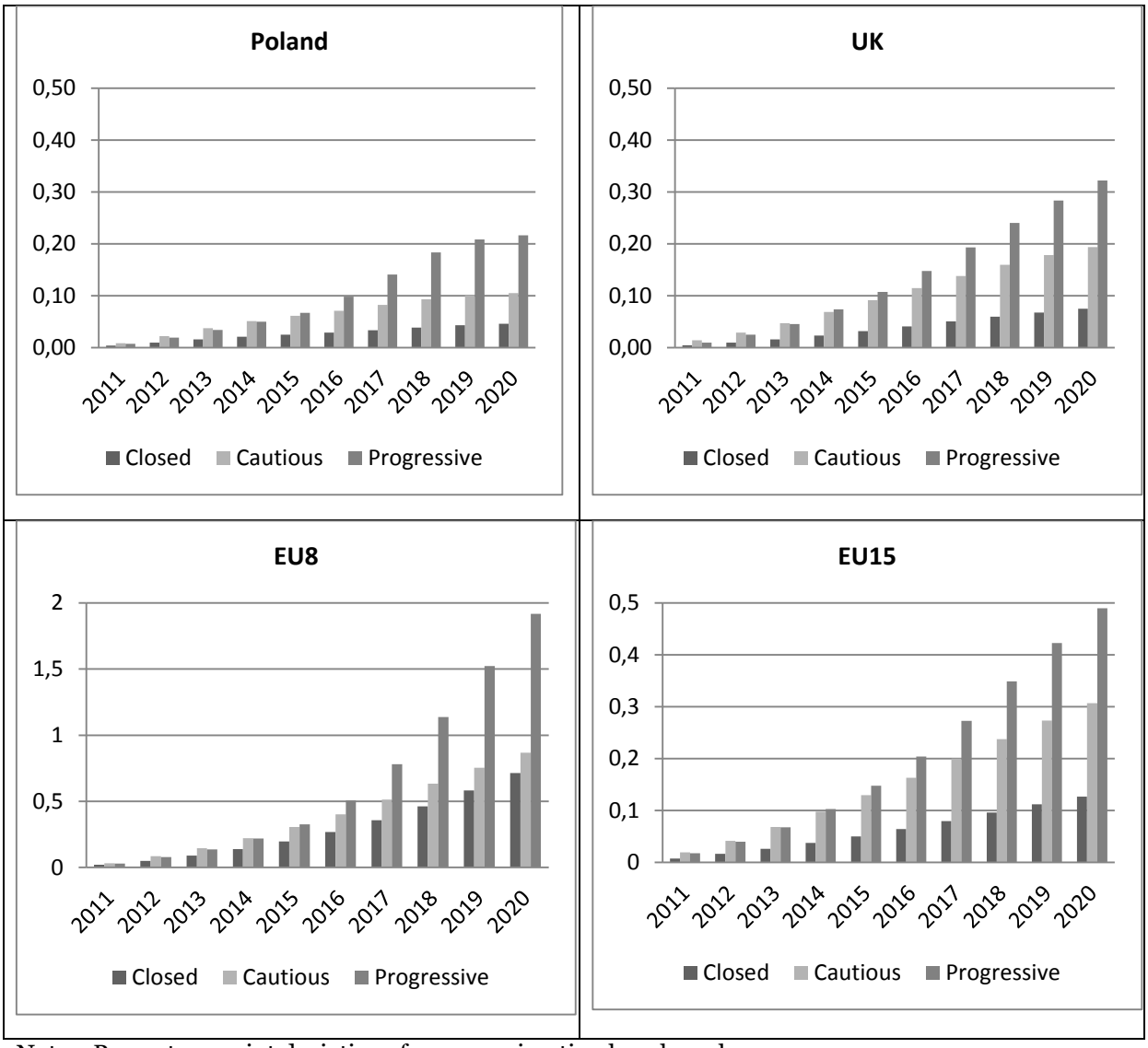
In response to an increased supply of labour due to immigration, the unemployment rate initially increases. As immigration drives down inflation in the short run, monetary policy can become more expansionary and, as a result, the unemployment rate is driven down. The long run effects of the permanent inflow of people can be offset by monetary and fiscal policies. Absorption of the labour supply shock occurs earlier in larger countries, as the shock is smaller (and thus easier to absorb) in relative terms. The smaller countries (and the EU8 countries in particular) would require more active policies to absorb the shock, as the relative labour market impacts are much larger (and the shock is persistent).

In Figure7.5 we show the results of our simulations for the largest EU countries: Germany, Italy, France, Spain, Poland and the UK, as well the EU14 and the EU8. We compare the results of the three scenarios in terms of GDP changes. While the Closed Europe scenario which assumes no liberalisation of the European labour markets in

terms of granting access to non-EU nationals, corresponds to very modest GDP increases, more labour access-friendly arrangements' scenarios suggest that the European economy would be significantly boosted by immigration from the EaP countries. In the largest EU economies, the no policy change scenario is likely to lead to an increase in aggregate GDP of about 0.05-0.1 per cent in the long run. Introducing a limited degree of the labour market liberalisation results in a positive change in aggregate GDP of about 0.1-0.3 per cent, with potentially the biggest effects materialising in Italy (and Spain). Progressive policies may lead to an increase in aggregate GDP of up to about 0.4 per cent (in particular in Spain and Italy).

Figure 14: The role of migration policies towards the EaP nationals for GDP growth in Europe



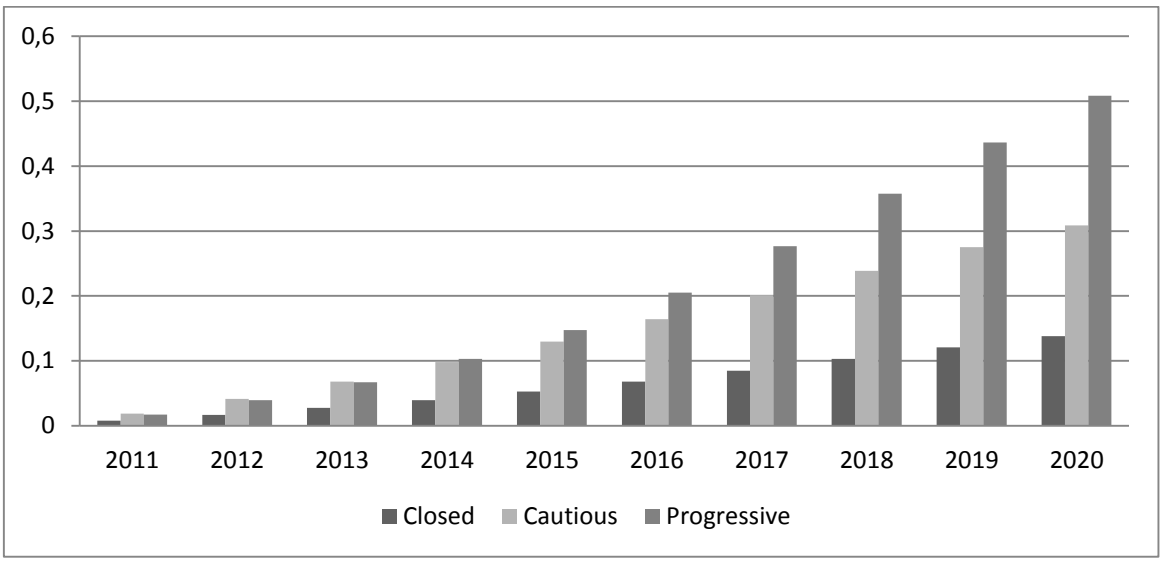


Notes: Percentage point deviations from no-migration benchmark

Table F.1 in Annex F provides further details about the effects for the EU. It compares GDP results of our "Closed Europe" scenario with scenarios "Cautious Europe" and "Progressive Europe". In the same Annex, Table F.2 reports changes to unemployment rates, whereas changes to inflation are shown in Table F.3. The results across the EU are similar to those presented in Figure 14.

In conclusion, in medium-term horizon, 2010-2020, the projected migration flows from the EaP are likely to have a positive impact on the host countries' aggregate GDP. There may be short-term costs in terms of higher unemployment, while in terms of short-term benefits migration results in lower inflationary pressures. An important message arising from these results is that higher degrees of labour market liberalisation result in higher increase in aggregate GDP in the receiving countries. Similarly, the effects on unemployment and inflation are larger under more liberal migration regimes. In Figure 15 we show results for the EU14 and EU8 as a whole.

Figure 15: The role of migration policies towards the EaP nationals for growth in the EU14 and EU8 as a whole



Notes: Percentage point deviations from no-migration benchmark

10. Summary and recommendations on better matching of migrants to needs

10.1. Fact, figures and findings about EaP migration to the EU to date

Flows

Current EaP migration to Europe is modest, growing in absolute numbers during the last decade, but slowed down since the inception of the Great Recession. In 2010, migrants from EaP countries represent only 3.58% of total immigration to EU25 countries, which equals a total of about 1.5 million EaP migrants. They are however distributed very unevenly across the EU countries. EaP migrants are a major immigrant group in Poland and Italy, but their presence compared to other migrant groups is rather negligible in the UK, Spain or Germany. From among the EaP countries, Ukrainian migrants typically constitute the largest migrant group both in absolute numbers and in percentage. In some cases, Belarusian or Moldovan migrants also have a significant share, suggesting that distance to the EU plays a significant role in migration decisions.

The 2004 and 2007 EU enlargements have re-directed EaP migrant flows within Europe. As EU8+2 migrants have been filling low-skilled vacancies, some EU15 countries (e.g. UK) hardened the entry of EaP migrants. Legal frameworks in EU8 countries have on the other hand become more open towards EaP migrants. Compared to other immigrant groups, EaP migrant presence in EU8 countries is currently relatively more prominent than in EU15, which is partly due to the political, social and economic ties between these regions in the past.

EaP migrant characteristics

In all countries, the EaP migrants were found to be rather well educated, often exceeding the education attainment levels of natives and the other migrant groups. An important share of migrants was found to have technical and engineering degrees (Poland, Germany). Factors that have influenced emigration of highly skilled workers from EaP countries are a lack of opportunities at home and high risk of unemployment, but also skill mismatches between education systems and labour market demand in home countries.

Most EaP migration appears temporary. Duration of stay of EaP migrants varies depending on legal framework, sector of employment as well as country of origin. For example, seasonal migration frameworks in Poland have facilitated legal seasonal employment of EaP migrants in construction and agriculture. Employment in domestic care sector seems to have had more durable nature, but does not appear

to be a stepping stone to permanent settlement in the host country. Migration plans of Moldovan migrants show up to have more durable nature while Ukrainian migration appears more short-term.

EaP migration is gendered along sectors of employment. Where domestic and social/elderly care service sectors dominate EaP (mainly Ukrainian) migration, migrant women prevail (Spain, Italy, Germany). Where constructions or agriculture are the sectors where EaP migrants fill the gaps, male migrants dominate (Czech Republic, Poland). Many migrants also work in trade and services, where gender distribution is more balanced.

Employment and downskilling

In spite of their relatively high level of educational attainment, EaP migrants predominantly find employment in low-skilled and unskilled sectors, such as agriculture, construction and domestic and care services. A small share of EaP migrants find employment in highly skilled sectors (e.g. financial services in the UK, IT industry in Poland). Allocation of EaP migrants to low-skilled sectors can be explained by the existence of demand in these sectors, which often rely on flexible labour or have become to be characterised as "migrant sectors" and are not attractive to natives due to lower wages and worse working conditions.

While downskilling, defined as working in a job with lower qualification than formally attained, is a problem at the individual level, it needs to be considered in view of alternatives at home, which tend to be limited. Strong push factors for emigration from the EaP region are a risk of unemployment and poor career prospects even for highly skilled migrants.

The key reasons for downskilling lie in institutional barriers, such as poor or complicated recognition of qualifications. This may be interacting with lower quality of education in the sending countries as well as poor knowledge of the host country language. Downskilling is also a function of the planned and actual length of stay in the labour market. Migrants may rationally underinvest in country-specific human capital if their time horizon does not provide for adequate returns on such investment. Migrants tend to integrate with time spent in the host country. The available estimates for both Spain and Germany suggest that closing the employment gap takes up to 10-20 years.

Labour demand in the EU and labour market matching

Labour market needs are currently very diverse across Europe. EaP migrants generally fill the existing skill gaps, especially in low-skilled sectors: agriculture (Poland), household services and personal care (Spain, Italy, Germany), construction (Poland, Italy) and retail and hospitality (UK, Germany).

A further shift towards the service sector and aging of EU societies will further increase the need for low-skilled (EaP) immigration. EaP migrants, primarily women, have played an important positive role in filling shortages in social and care services. While their wide-spread over-qualification remains a concern, their contribution to the host country labour market has been significant both through direct micro-level impact as well by enabling national, primarily female, labour force to participate in employment.

Several countries in Europe are or will be in need for engineers, health professionals and other highly-skilled professions in management and business administration. As EaP migrants across the analysed countries represent one of the best educated migrant groups, they are generally well suited to fill in demand in the high-skilled sectors and represent a channel for further human capital development in the EU. However, currently only in some countries EaP migrants find employment in high-skilled occupations, if so it is mainly in IT and financial sectors.

Poor matching of EaP migrants with tertiary education is therefore a problem from the perspective of EU needs for highly skilled migrants.

Costs and benefits of EaP migration for Europe

EaP migrants enter the EU predominantly for employment purposes, which is reflected in their favourable employment rates, especially when compared to immigrants from other third countries. Average employment rates are well above those of other foreign groups, in the range of 60-70% (Spain, Italy and Poland). EaP migrants in Germany suffer an employment disadvantage with respect to natives, although this gap is unexceptional and in line with the same outcome for other non-EU migrants. In this context, gender asymmetries in labour force participation rates play in favour of the EaP migrants. In fact, in Italy, Poland, Spain and the UK (but not Germany) EaP women are the breadwinners, with higher employment rates than males.

EaP migrants cause no negative effect on wages of native workers. Our own analysis, in congruence with existing data and literature, show that EaP migrants have in general no negative effect on wages or employment of other groups of workers in receiving countries. The occupational distribution suggests the presence of complementarities rather than substitution between migrants and natives. In addition, labour market effects are limited also in view of the relatively small size of the EaP migrant populations relative to the host populations or other immigrant populations in receiving countries.

The economic crisis worsened labour market outcomes of EaP migrants. This is a result of their employment in more crisis-prone sectors, especially construction. Return of EaP migrants was more likely in those countries and

contexts, where possibility of re-entry was easier (e.g. temporary migration frameworks in Poland).

EaP migrants do not have disproportionately high welfare take-up rates than other migrants in terms of access to social assistance or family benefits. In Spain and Germany, migrants have relied on unemployment benefits to a larger extent than natives which, however, reflects their likelihood to work in the sectors affected negatively by the crisis. EaP migrants enjoy limited or no access to pension systems, while the transferability of their working period abroad towards right accruing access to pensions upon return are problematic.

At the macro-level we find positive effects of recent post-enlargement labour mobility on EU's GDP, GDP per capita, as well as employment. This result appears to be conditional on free access to EU's labour markets, such as in the case of EU8+2 immigrants. We observe small negative effect of migration in case of restricted access to EU labour markets, as in the case of EaP immigration. This result could in part be driven by restrictive migration policy frameworks towards EaP migrants that appear to hamper migrants' potential to integrate and improve the allocative efficiency across EU labour markets.

Costs and benefits of EaP migration for EaP countries

Costs and benefits for EaP countries and migrants themselves have been mixed, but overall seem more positive. While substantial emigration might reduce aggregate demand on the EaP countries, the current wave of labour migration represents a response to labour supply imbalances in the home countries, and has thus helped to reduce downward pressures on wages and to enhance productivity. Against the backdrop of the labour force, all EaP countries experienced rapid GDP growth, growth in real wages, and consequently growth in labour productivity.

Negative externalities might affect mainly the left-behind, especially children. On this aspect we however found evidence that migrating parents typically leave only when other caring arrangements are in place. Potential costs stemming from the sending countries' side lie in a possibility of a Dutch-disease resulting from the inflow of foreign currency and inflationary pressures. Moreover, corruption practices in the sending countries often absorb and divert remittances away from more productive use. Migration and remittances are tightly linked to growing inequalities and feeding corrupt infrastructures that provide services often within or parallel to the state-guaranteed provisions (education and health care in particular).

Current migration framework

The existing labour migration policy frameworks are diverse and differ in their scope and entry criteria. A stronger emphasis on more refined frameworks for skilled and highly-skilled migrants is notable, perhaps at the expense of

opportunities for low-skilled immigration. Overly complicated and pricy administrative procedures for gaining visa and/or work permits coupled with limited capacity of some Member States to control migrant entry seem to be increasing the share of illegal immigrant labour, especially if demand in low-skilled sectors is strong.

With the exception of Poland, in most cases specific governmental programs do not target EaP countries specifically, but rather apply to third country nationals generally. This is partially due to different labour market conditions, migration histories vis-à-vis the EaP countries as well as the impact of the Great Recession which has in some countries led to more restrictive migration policies towards EaP migrants (e.g. the UK).

Pecuniary and non-pecuniary costs of entry for EaP migrants are very high. Administrative procedures or legal employment are costly and cumbersome. National visas for long-term purposes of employment require different sets of documents in various EU countries, visa processing duration is long, available information scattered and visa fees high. Due to cumbersome procedures, migrants often rely on intermediaries to assist them in visa access which further increases the costs of entry. Visa regimes as they exist currently tend to create high barriers to circulation, through border controls, contract-dependent stay permits, lengthy bureaucratic processes of applications and renewal of documents. At the individual level all these obstacles translate into years of efforts in which migrants often develop various forms of dependencies on employers and intermediaries.

There are strong indications that the expensive and burdensome visa issuance procedures and restrictive migration policies currently characterising most of the EU Member States are dis-incentivising migrants from seeking legal routes of entry and employment and diverting them into irregularity. This has important negative implications for migrants who then are more prone to exploitation in the labour market and less likely to return in fear of difficulties of re-entry, and on host countries, as illegal migrants do not contribute to tax and social security systems.

Regularisations and amnesties targeting irregular migrants have served as interventions yielding *ex post* benefits to migrants as well as host countries, but may create an *ex ante* moral hazard problem. Countries with a limited capacity to control inflows of migrants have used these as a primary policy tool. Regularisations help both to prevent migrants from being exploited in the shadow economy and to generate welfare benefits for the receiving country. Their use may, however, create *ex ante* expectations of their future implementation and thus provide incentives to enter the country on an irregular basis, expecting to be regularised later, i.e. a problem of moral hazard.

We evaluated temporary and circular arrangements as beneficial for receiving as well as sending countries; we however also identify a

number of policy challenges, mainly related to the sharing of migration costs between migrants and stayers, or tied migrants, within households. The country study experts evaluated the existing temporary frameworks as especially beneficial for managing and encouraging legal employment while enabling to respond to the particularities of labour market demand. Temporary migration needs to be governed not only in relation to the regulation of border crossings and work and residence permits, but also in its relation to economic sustainability, social security provisions and their portability, and risks and limitations it may inflict on staying family members or tied movers, also in terms of their professional growth and social mobility.

For temporary migration to bring most benefits to host countries as well as to migrants, supportive institutional framework is essential. This includes better access to information on migrant rights as well as improvements in the area of welfare systems (e.g. pension portability schemes), but also more flexibility in legal frameworks to facilitate entry, return and re-entry.

Existing legal frameworks shape migration patterns by influencing length of stay, routes of and selection upon entry, and sectoral allocation. Receiving countries' migration frameworks but also general institutional and structural environment, especially labour market regulation and available types of contractual arrangements, strongly impact upon the possibilities for circular migration, especially of migrants employed in low-skilled sectors. Migrants in general make efforts to optimise their migration plans and minimise their costs, also by adjusting their modes of entry, choice of destination countries, and choice of employment arrangements. Notably, imposition of stricter policies in one receiving country has spillover effects on migration trends elsewhere in Europe.

Stakeholders' views on EaP migration and its costs and benefits (expert opinion survey)

Public attitudes towards and perceptions of EaP migration are generally negative, in spite of the fact that a significant share of surveyed expert stakeholders sees the public as a beneficiary of EaP migration.

Nearly a half of expert stakeholders consider EaP migrants to be not at all or poorly integrated. The main factors attributed to poor integration are institutional barriers, lack of recognition of qualifications, discrimination and poor knowledge of official language. These factors were also indicated as causes of downskilling of immigrants.

Among expert stakeholders, job dependent immigration based on labour market selection receives the highest support as the policy that can best address the economic and labour market needs of their country. This perspective is reinforced by a significant support (5th largest) for complete

liberalisation of migration policy, and essentially no support for a closed-borders policy. The next most favoured policies are positive selection on skills and education, and migration quotas, but also selection based on migrants' needs (including e.g. refugees).

Expert stakeholders identified employers and employers' associations as the key beneficiary group and the most likely supporter of a more liberalised migration policy towards EaP countries. Workers, trade unions and employee associations are generally seen as opponents and non-beneficiaries of more liberalised policy framework. A third of experts see their respective governments as likely to oppose moving towards a more liberalised migration policy framework.

Future migration from EaP region and its effects

Expert stakeholders indicate the existence of migration potential in the EaP region towards the EU should migration policy be liberalised.

Based on an established prediction model taking into account demographic, economic and policy variables as well as network effects we project modest migration flows from the EaP to the EU until 2020. Our analysis shows that between 2011 and 2020 we can expect the following migration flows from the EaP countries to the EU14:

- under the baseline scenario of no policy change on average about 100 thousand migrants per annum (1.03 million migrants over 2011-2020),
- visa liberalisation leads to essentially no additional migration,
- labour market liberalisation is projected to result in on average 100 to 300 thousand additional migrants per annum (0.96 to 3.03 million additional migrants over 2011-2020), depending on economic conditions as well as migration policies.

Correspondingly, to the EU8 we can expect:

- under the baseline scenario of no policy change on average about 40 thousand migrants from the EaP per annum (0.4 million migrants over 2011-2020),
- essentially no additional migrants if visa is liberalised,
- selective labour market liberalisation is projected to result in little additional migration, up to 8 thousand migrants per annum. Full liberalisation is projected to result in on average 37 thousand additional migrants per annum, i.e. between 0.08 and 0.56 million additional migrants over 2011-2020, depending on economic conditions as well as migration policies.

Most of the migrants are predicted to go to Italy and Germany, and originate from Ukraine. ***Fears of massive inflows following liberalisation of labour markets are unjustified.***

Policy framework has a key role in affecting observable migration flows. The most effectual variable affecting observable flows of migrants are policy indicators, while migration costs and economic conditions have a significant but smaller effect. Among policy factors, partial liberalisation is less powerful than full liberalisation. Visa liberalisation leads to no additional increase in migration. Observed flows follow an inversed U-pattern and after initial steep rise, they tend to decline.

The projected migration from the EaP to the EU is likely to have a positive impact on host countries' GDP in the medium-term horizon 2010-2020. There may be short-term costs in terms of slightly higher unemployment, but migration reduces inflationary pressures.

In effect, **a more liberal migration framework with EaP countries is likely to bring greater benefits to host EU countries, especially as concerns host countries' GDP and inflation.** Specifically, using an established NiGEM simulation model, under the baseline scenario "Closed Europe" we find

- Positive effects on GDP and GDP per capita, reaching 0.129 percentage points in the EU14 and 0.296 percentage points in EU8 above the no-migration benchmark by the end of 2020.
- Anti-inflationary effects, attaining -0.15 percentage points in the EU14 and –0.297 percentage points in the EU8 by 2020.
- Small effects on unemployment, increasing it by 0.009 percentage points in the EU14 and 0.058 percentage points in the EU8 by 2020.

Under cautious and progressive Europe scenarios the magnitude of the effects increases, yielding

- 0.307 percentage point increase of GDP in the EU14 and 0.868 percentage point increase of GDP in the EU8 by 2020 under "Cautious Europe" scenario,
- 0.490 percentage point increase of GDP in the EU14 and 1.919 percentage point increase of GDP in the EU8 by 2020 under "Progressive Europe" scenario.

We attribute these positive effects to better possibilities for allocative efficiency stemming from an easier mobility across the EU countries and between the EU and sending countries.

10.2. Synthesis of key messages, policy lessons and recommendations

On the background of a review of adverse demographic trends, projections of labour market skill needs, and expert stakeholder evaluations, the European Union is likely to face skill shortages in its labour markets. Our analysis of past mobility between the EaP and the EU indicates that EaP migrants exhibit characteristics that make them well suited to address labour market shortages in the EU both at the high-skilled and low-skilled spectrum. Better labour market matching also reduces the risk of downskilling, and thus provides for increased benefits from brain circulation for the countries of origin. There thus appears to be a potential for a win-win scenario of increased EaP-EU mobility. More efforts invested into integration of migrants are thus likely to accrue additional benefits to mobility between the EaP countries and the EU. Institutional improvements are especially necessary in the areas of equal treatment, recognition of qualifications or transferability of social rights.

The cross-cutting quantitative and qualitative analysis based on hard data presented in this report consistently shows that the economic effects of labor mobility are generally positive, and more so in case of more liberalised migration frameworks. The key reason is that such frameworks provide for better labour market matching and filling up of skill gaps in EU labour markets. Restrictive migration frameworks on the other hand tend to limit the potential for positive impacts of mobility in a number of dimensions.

A number of findings support these conclusions. Firstly, the EU country studies report neutral-to-positive micro-level effects of EaP migrants in the host labour markets. A quantitative study of the effects of past migration flows on European economies shows that immigration from countries with which the EU maintained more liberal migration frameworks (EU8, EU2) positively impacted EU's GDP, GDP per capita or employment; but this was not the case for countries towards which more restrictive migration regulation was applied (EaP). In a macro-simulation model we also find that projected migration flows can be expected to have long-lasting positive effects on GDP and price stability in the receiving countries, and only small effects on unemployment. Our analysis shows that migrants respond to existing labour market shortages more flexibly than the natives. Finally, more restrictive migration policies significantly reduce migration flows, and thus limit any potential benefits from labour mobility.

Additional costs of restrictions arise at the micro level. Country studies and a qualitative household-level study show that restrictive migration policies increase costs of migration at the individual level and tend to push migrants to rely in irregular modes of entry and various intermediaries. More costly re-entry makes

circular migration less likely, bringing less benefits and greater costs to home countries and those left-behind, especially children.

It is reasonable to expect increased migration flows from EaP countries over the next decade if a more liberal migration framework is implemented. At the same time, fears over uncontrollable inflows following liberalisation of labour markets are unjustified. Projections up to 2020 indicate only modest migration flows from the EaP to the EU. Importantly, we find that liberalization of short-stay visa leads to essentially no, and selective labour market liberalisation only little, additional migration. Based on assessment of EU's labour market needs and on finding generally positive effects of EaP migration to Europe, we see increased mobility as a positive and desirable outcome.

Core barriers to migration and better labour market matching currently lie in areas including recognition of qualifications, poor language proficiency of migrants, limitations of entry or employment of spouses, or the practice of tying of residence permits to work permits, which creates barriers to employment mobility among EU Member States. Even if migration policy status quo is kept, addressing these areas provides scope for mobilisation of human capital potential of EaP citizens who already are present in EU Member States. Visa policies represent an additional barrier, which does not seem to significantly affect labour mobility at the aggregate level, but it burdens migrants and their families, decreasing their quality of life. Visa policy instruments are currently complex and administratively burdensome, and migrants lack information about how to deal with various requirements in the process of obtaining visa.

Based on these findings, we propose the following interventions which we structure into thematic areas. Combined these interventions can provide an effective impetus to better labour market matching of migrants.

Migration policy options

Based on the findings summarised above, we propose gradual liberalisation of mobility between the European Union and the Eastern Partnership countries as the first-best policy option. We evaluate gradual liberalisation as a win-win scenario, in regard of the economic benefits and improved allocative efficiency of labour markets in receiving countries, potential for brain circulation and remittances for the sending countries and increased range of career possibilities for migrants themselves. Additional benefits lie in the relative simplicity and low implementation costs of liberalisation policies (compared to current frameworks), lower migration costs for migrants and lack of rents for migration intermediaries.

Shifts towards more liberal migration framework can be conducted in different steps and at different levels to take into account country-specific labour market needs and political feasibility of changes across the EU member states. We discuss these policy and legislative options in view of highlighting benefits and costs for different actors engaged in migration.

Visa liberalisation

A natural first step in gradual liberalisation is the liberalisation of visa regimes. Visa liberalisation would represent a concrete step towards ensuring an easier entry and re-entry of migrants and thus enhance short-term or seasonal mobility between the EU and EaP countries. Such mobility is much needed to mitigate existing internal labour market inflexibilities and provide for labour market adjustment. Beyond temporary or seasonal mobility, we find short-stay visa liberalization to have essentially no effect on the scale of additional net migration. This implies that additional instruments are needed to provide for long-term adjustment in European labour markets. The benefits of short-stay visa liberalisation, however, include more facile intra-family contact and thus easier reconciliation of migration trajectories with family life within migrant households and strengthened contact between diasporas and their home countries, leading to an improved potential for benefits from trade and business ties and exchange of information and technologies. The decreased pecuniary and non-pecuniary costs for migrants and their families would be a benefit on its own, but an additional benefit may materialise in improved allocative efficiency of mobility, and more favourable selection of migrants to the EU, as opposed to competing destinations such as Russia or overseas. We therefore see liberalisation of short-stay visa as a first step on a more encompassing sequence of mobility enhancing policies, which would together provide for an increased potential for circular migration and improved economic efficiency and labour market matching in Europe.

Transitional visa measures: Visa facilitation and harmonization

As a transitional measure on the way towards full visa liberalisation, we propose visa facilitation. Under visa facilitation framework the costs of visa fees are reduced or eliminated, at least for some categories of migrants. Visa facilitation agreements can provide benefits of similar nature but smaller scale than those offered by visa liberalisation.

We acknowledge that the regulation of visa policies rests with EU Member States. We however propose that multilateral and bilateral methods of coordination are utilised to harmonize requirements for short- and long-term visa across the EU to ease up orientation of migrants. This in particular concerns duplication of administrative procedures and documents in case of repeated visa application or application of holders of visa on one EU Member State in another Member State.

Skill-enhancing EU-level migration frameworks

The demographic trends and preferences of EU citizens result in medium- and long-term skill shortages across the EU. The current EU-level migration frameworks, such as the EU Blue Card, fall short of the mark, as they do not appear to have created incentives for greater labour mobility in Europe. We therefore propose to extend the Blue Card migration framework to encompass broadly-defined skilled workers, based on a transparent points system rewarding qualifications, job experience, language skills and age. Of central importance are complementary provisions for immigration of family members, measures facilitating integration into the labour market but also social services and assistance, and transparent rules for long-term residence and employment in the EU. To truly contribute to intra-EU mobility, the Blue Card framework needs to provide for frictionless mobility of Blue Card holders and their family members across the EU member states.

Selective liberalisation and bilateral and multilateral temporary migration frameworks

Bilateral and multilateral programmes between EU Member States and EaP countries, especially concerning temporary and seasonal migration, would allow for targeted opening based on needs of receiving countries and possibilities of sending countries. Considerable scope exists for enhanced special migration provisions between the EaP countries and EU Member States which are in need of domestic and care service workers, or specific types of high-skilled workers. The existing bilateral frameworks on transferability of social rights need to be reviewed to identify functional mechanisms and possible bottlenecks for different types of migrant workers (by sector, age, type of employment contract, etc.).

While concerted efforts at the EU level for more transparent and unified policies are desirable, due to different labour market needs across the EU labour markets bilateral frameworks may be provided in parallel. The strength of bilateral frameworks rests in the ability to adjust migration framework with respect to sending and receiving countries' needs and possibilities. Bilateral schemes could be designed in particular for seasonal and short-term migration. The temporary migration scheme implemented in Poland with respect to a number of EaP countries is a good example of benefits of such schemes.

Work-permit liberalisation and facilitation

As a general recommendation we suggest to liberalize and facilitate acquisition of work permits with the objective of providing a flexible migration policy framework satisfying EU's needs for temporary and permanent migration. Following good practice already applied by number of Member States, we propose abandoning the

policy of administrative labour market test in favour of labour market driven selection (i.e. of those obtaining a job offer in the country), possibly combined with general universally applied selection criteria. This approach would best serve the purpose of labour market matching, provide a transparent and credible policy rule, and reduce the costs of policy implementation. We also propose to adopt transparent policy rules for, and decrease the costs of, work permit acquisition, renewal or change. We outline a more concrete two-pronged approach in the Final Report of this project.

Work and residence permit grace periods
A related proposal is to provide for grace periods regarding expiration of work and residence permits. In cases where these permits are tied to each other, or tied to specific job or student status, work and residence permits should provide for a grace period upon discontinuation of any condition on which they are dependent enabling migrants to stay in the country and make effort to reinstate their status. This especially concerns loss of job or termination of student status, after which migrants should be provided time in the country to search for a suitable job. This would enhance labour market matching, and reduce the risk of irregularity and vulnerability of migrants.

Tapping the existing potential of EaP migrants.
In some countries, potential of EaP migrants which are already in the EU is not fully utilised. Some barriers which we identified lie in the legislation which prohibits spouses of migrants to enter employment or limits the possibilities of EaP students studying in the EU to seek employment in the EU upon graduation. Improvements in these areas would improve the labour market matching of EaP migrants already in the EU and help to fill up existing skill shortages.

Increased transparency of migration intermediaries
Cumbersome and expensive process of visa obtaining has strengthened the role of intermediaries which assist migrants. While some intermediaries provide migrants with needed information and services, the inherently asymmetric information favouring the intermediaries over migrants create a risk of rent-seeking and abusive conduct, or monopolization of access to regularised or legal employment Provisions increasing the transparency of the conduct of migration intermediaries would help to reduce the risk of such adverse conduct. This aspect of mobility could be regulated at the EU level.

Full labour market liberalisation
We see fully liberalised labour migration between the EU member states and EaP countries as the policy option, providing the greatest benefits to receiving and sending countries as well as migrants themselves, and as the long-term policy objective. Its key benefit lies in its simplicity and low implementation costs for the

countries, lower migration costs for migrants, lack of rents for migration intermediaries and best possibilities for allocative efficiency of migrants across the EU member states. We argue that the ensuing migration flows would be modest and the EU labour markets would absorb them to the benefit of increase labour market matching, but also to the benefit of migrants themselves. The removal of the barriers to enter and re-enter the EU labour markets would also provide conditions conducive to circular migration between the EU and EaP, thus providing for brain gain and other benefits for the sending countries.

Migrant integration policies

Although we consider liberalisation of access to EU labour markets for EaP, its successful implementation in terms of improved labour market matching requires complementary migrant integration policy frameworks. These relate to many spheres of life, including skill transferability, social rights, elimination or reduction of informational gaps, management of public opinion, and involvement of relevant stakeholders. The key areas of policy intervention are presented below.

Facilitation of skill transferability

An important factor limiting the potential for improved labour market matching is the donwskilling of migrants into jobs below their level of qualification. To overcome barriers leading to downskilling, we propose to facilitate recognition of qualifications in the spirit of the rules applying to intra-EU mobility. To overcome the discrepancies in the scope and quality of formal qualifications in the EaP and the EU, this includes the provision of a qualification recognition framework. Such a framework should stipulate correspondences between requirements applied in the EU and formal qualifications and educational institutions in the EaP countries. Automatic recognition of qualifications along such corresponding lines would provide for increased predictability of the recognition process, provide better incentives for potential migrants, and lead to an improved labour market matching in the EU. The qualification recognition framework, including the whole set of correspondences, needs to be transparent and well-communicated to potential migrants already at the pre-departure stage, in order to properly inform their migration decisions and thereby strengthen the potential for improved labour market matching.

Promotion and enforcement of equal social rights and working conditions

A more balanced outcome of migration for migrants and for society as a whole can be achieved by better promotion and enforcement of equal social rights and working conditions of migrants. This would promote easier circulation of labour force present in a country and prevent establishment of migrant-dominated occupational enclaves. It is also likely to encourage matching of migrants to jobs that correspond to their qualification levels. Enforcement of equal social rights reduces the risk of social

exclusion or stigmatisation of migrants, and generally should provide for more positive mutual attitudes and beliefs in the interactions between natives and migrants.

Improvement of access to and portability of social rights

A more specific concern in the domain of social rights is the need for more inclusive and transparent mechanisms for easier access to paying contributions and claiming social benefits. During their migration spells regular migrants contribute to social security and pension schemes of host countries. For most migrants, however, access to their pension rights remains limited. This is not only inconsistent with the principle of equal rights; it also creates incentives to evade contributions and taxes. In particular, it is desirable to simplify the process of claiming social benefits and improve their portability to other EU Member States and third countries.

Portability of social rights is the backbone of improved mobility and labour market matching in the context of mobility between the EU and third countries, EaP in particular. It is especially important in regard of temporary and circular migration trajectories. We therefore propose that regulations governing the access and portability of social rights for EU citizens are gradually extended to apply to EaP migrants as well. An important advantage for receiving countries would be the increased incentives to contribute to pension schemes guaranteeing a high degree of portability, and thus improved collection of contributions. This proposal includes harmonisation of national regulations in the sending countries with EU regulations, including a provision that the period of employment abroad is recognised as a "pensionable work experience" which is taken into consideration in meeting the retirement requirements in home countries. Such measures are likely to incentivise regular migration as well as encourage high-skilled mobility and brain circulation. Bilateral frameworks on social rights transferability are a useful transitional approach; and the policy response needs to provide for evaluation mechanisms to identify functional mechanisms and possible bottlenecks in existing bilateral frameworks, providing for identification and dissemination of good practices.

Improvement of knowledge about and transparency of existing frameworks for transferability of social rights

Knowledge about existing schemes for transferability of social rights is very limited. While several Member States have already in place bilateral agreements on transferability of social rights, very little is known about specific aspects of their implementation and usage by migrants. Existing evidence suggest that migrants are not informed about these frameworks and even if they exists, they are not applied extensively. The policy response needs to provide for evaluation mechanisms to identify functional mechanisms and possible bottlenecks in existing bilateral frameworks on social rights transferability for different types of migrant workers (by sector, age, type of employment contract, etc.)

Provision of information and 'one-stop shops' for migrants

Due to the nature of immigration, migrants enter host countries with informational deficiencies. These lead to limitations concerning their opportunities and choices. Lack of information also disempowers migrants and exposes them to risk of exclusions or abuse. Therefore, effective institutions of reach-out and social support should be developed to ensure dissemination of information, protection from abuse, and provision of shelters in the cases of violence and psychological counselling to migrants. It is important to make information and help services for migrants more flexible and proactive. The availability of free consultancy centres for migrants, hot lines, multilingual websites and outreach trainings would help reducing the risk of abuse of the migration system by some intermediaries. Offering these services under one roof as 'one stop shops' in the EaP countries and EU Member States would be convenient for migrants and cost-effective. One-stop shops could also be used as points of reference providing expert advisory services for EU and EaP administrations in case of specific questions that may arise in dealing with more complex migratory trajectories. One-stop shops should in particular integrate specialized services facilitating the process of recognition of qualifications.

Provide better information about labour market opportunities for migrant labour

In the labour market a lack of information about job opportunities results in poor labour market matching. Strengthening of the capacity of employment agencies to provide for the needs of migrants is needed to ensure better labour market matching of migrants in host labour markets. The paradigm should also become more pro-active, providing better access to information already for potential migrants when they are making their decision about whether/where to migrate. Cooperation of EU and EaP employment agencies in cooperation can assist migrants in making informed choices with respect to destinations. Services similar to EURES should be supported in EaP countries, as publicly funded institutions and, exploring manifold synergies, placed within 'one-stop-shops' in the host countries.

Invest into legislative improvements in employment and labour regulation in the geriatric and care sector

The need for migrant labour in geriatric and care sector is likely to grow. More control and awareness-building over the work conditions (working hours, tasks and living conditions) and fair payments is desirable, especially in the care and domestic sectors. More supportive employment and labour regulations should be passed that would shelter the migrants in cases of the death of the employer and would allow migrants time, shelter and security needed to find a new job. Employers in the domestic and care sector should be actively encouraged to allow a possibility of circularity among hired migrants by accepting substitute employment.

Reward good behaviour of migrants

The rules governing the acquisition of citizenship and permanent residency for migrants differ widely across the Member States. In order to attract skilled migrants to fill up labour market gaps, more stability and better prospects for possible full integration need to be available as an option. We propose to promote "best practices to citizenship/permanent residence path" to increase the transparency and predictability of migrants' plans. We in particular suggest to reduce the costs of the procedures and to promote best practice concerning the minimum period of prior residence in the country required to obtain permanent residence or citizenship.

Strengthen and mobilize diasporas

Migrants in sending countries (diasporas) can build an important basis for the effective attraction of the needed additional temporary and permanent workers. Diasporas can support circularity, and strengthen the economic relationships between sending and receiving countries through trade (imports, exports), investment and innovations. Diaspora organizations can play an important role in this. To facilitate these benefits, we encourage Member States to consider the options of providing dual citizenship to migrants as a way to enable migrants to fully realize the potential of international business activities between their host and home countries. This also requires increasing administrative capacity and coordination among various state agencies to adequately deal with the diaspora agenda with the objective of tapping on the benefits from the linkages diasporas facilitate.

Support actors who can assist migrants

Involvement of a broad range of stakeholders who can assist migrants needs to be promoted. Governmental and non-governmental organisations, civil society organisations, trade unions and the business sector, and migrants' representatives in particular can provide social fabric conducive to migrant integration in receiving and sending countries. These actors should be actively involved in design and implementation of migration and integration policies. Existing examples of the work of labour unions demonstrate that trade unions even in an institutionally adverse environment can assist migrants in important areas, such as the recognition of qualifications and information sharing on national labour law legal framework, and so facilitate better integration of migrants. Unions members should be better informed about existing evidence on outcomes and costs and benefits of migration and serve as special intermediaries for shaping workers' generally negative attitudes towards migrants.

Facilitation of return and integration after return

Integration into home state labour market after absence due to migration can lead to loss of continuity, social ties and familiarity with the local environment from institutional or legal perspective (contractual arrangements, job opportunities, taxation and social rights). Sending countries could assist migrants in their integration by providing targeted information on various aspects of re-integration in order to facilitate return, circulation and integration. Integration of this service in one

stop shops in the EaP countries would provide for cost-efficiency and synergetic benefits.

Inform public opinion about migration
Negative public opinions about migration represent a key obstacle for Europe in benefiting more from EaP migration. EU committees which bring together member states and various stakeholders can play a positive role in sharing evidence from independent research relevant to the topic of migration to actively shape discussion on the impact of migration on EU, which has been generally positive. Some aspects of migration are currently viewed negatively also in the sending countries. For example, we identified blaming discourses and negative images linked to female migration. A more balanced portrayal of migration can be achieved by opening up public and media space for discussions, direct self-representation of migrants and raising issues linked to migration. Further, focus could be dedicated to creating open access programs and spaces that would promote richer communication between migrants and their families, facilitate transnational communication and exchange of information. Improved dissemination of information about migration and its costs and benefits can help to break the vicious circle of negative attitudes towards migration leading to suboptimal policy reaction, which in turns results in adverse socio-economic outcomes, eventually further reinforcing the negative attitudes.

In sum, there is much the EU, EU Member States, and EaP countries can do to enable all the involved stakeholders to benefit from increases labour mobility between the EU and EaP countries. An overarching paradigm should be that of transparent, participative and informed debate with stakeholders including the general public. Evidence-based policy making based on best practices should be a fundamental policy standard. The role of data collection, independent evaluation and dissemination of findings, as well as implementation of lessons from the gathered evidence in policy making, are essential in this process. As concerns practical policy making, the paradigm of migration mainstreaming, whereby all labour and social regulations are scrutinised for their effects on mobile workers and all categories of migrants, needs to be adopted. Concrete migration and integration policy measures as suggested above need to be effectively implemented. Under such approach the EU and EaP will mutually benefit from increased mobility between the two blocs, providing for sustainable prosperity and strengthened competitiveness vis-à-vis their global partners.

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12. ANNEX A

Table A.1: Stocks of migrants from EU8, EU2 and EaP in European destinations: 1995 and 2010.

ORIGINS:	EU8		EU2		EaP		Total immigrant stock (all destinations)		EaP share of total immigrant stock (%)		EaP share of total host country population (%)	
DESTINA-TIONS:	1995	2010	1995	2010	1995	2010	1995	2010	1995	2010	1995	2010
Austria	165478	185535	46083	79990	5144	16571	1003399	1315512	0.5	1.3	0.064	0.198
Belgium	6972	58131	2909	39554	867	12853	891980	1057666	0.1	1.2	0.008	0.119
Bulgaria	1165	1093	195	183	4966	4502	25634	23838	19.4	18.9	0.062	0.059
Cyprus	1105	x	5816	x	2293	x	88640	x	2.6	x	0.234	x
Czech Rep.	75744	91830	6331	11483	49018	141475	159207	426423	18.8	33.2	0.475	1.345
Denmark	13010	42570	1803	11099	483	7969	249885	428904	0.2	1.9	0.009	0.144
Estonia	7029	x	63	x	40946	x	262826	x	15.6	x	2.99	x
Finland	7941	31870	850	2769	68	1457	106303	248135	0.1	0.6	0.001	0.027
France	125377	120006	30164	64626	13239	46182	4308527	5342288	0.3	0.9	0.022	0.072
Germany	423263	680314	148103	201405	50718	192815	7173866	6753621	0.7	2.9	0.062	0.236
Greece	6772	2165	10373	55463	1177	47524	155453	621023	0.8	7.7	0.011	0.426
Hungary	8539	11249	70151	73930	3522	18021	139953	197819	3.5	9.1	0.048	0.18
Ireland	419	152452	738	12705	0	5906	251624	612169	0	1	0	0.132
Italy	29031	143759	27792	1019710	2092	346163	991678	4570317	0.2	7.6	0.004	0.572
Latvia	31333	27722	110	924	128575	110619	401974	343271	32	32.2	5.529	4.941
Lithuania	13499	15624	60	180	80110	81707	246609	222447	32.5	36.7	2.301	2.433
Luxembourg	1096	7118	468	2249	259	x	162285	221364	0.2	x	0.059	x
Malta	176	468	232	1012	138	474	9751	15460	1.4	3.1	0.035	0.115
Netherlands	22771	91271	4067	27099	86	2544	1284106	1735217	0	0.1	0.001	0.015

Poland	91519	20276	5047	4176	415330	167302	1358799	883480	30.6	18.9	1.086	0.438
Portugal	368	3280	411	45004	66	67230	168316	443055	0	15.2	0.001	0.632
Romania	7126	7757	19928	19036	53454	57648	133983	161597	39.9	35.7	0.245	0.268
Slovakia	8127	18957	1784	1641	2792	6226	21907	62584	12.7	9.9	0.052	0.115
Slovenia	1129	1791	189	758	301	1799	212458	253786	0.1	0.7	0.015	0.088
Spain	8567	135433	4616	948384	1242	124840	1067478	6604181	0.1	1.9	0.003	0.272
Sweden	76655	117131	14227	26393	694	11874	936022	1384929	0.1	0.9	0.008	0.127
UK	179143	978792	6892	149780	660	18092	3828790	7317000	0.2	0.2	0.001	0.029
Total	1313354	2946594	409402	2799553	858240	1491793	24758895	40437040	3.46	3.68		

Source: Immigration: Pytliková (2012). Host country population: World Development Indicators, World Bank.

Notes on migration data: Instead of year 1995, year: 1996 for Ireland and Czech Rep., 1997 for Italy and Spain, 1998 for Belgium and Slovenia, 1999 for France, 2000 for Austria, Estonia and Luxembourg, 2001 for Bulgaria, Lithuania and Malta, 2002 for Cyprus, Poland and Romania. Instead of year 2010, year: 2009 for Belgium, Bulgaria, Romania and Spain, 2008 for France, Lithuania and Malta, and year 2006 for Greece.

Table A.2: Stock of migrants from each EaP country in European destinations in 1995 and 2010

ORIGINS:	Armenia		Azerbaijan		Belarus		Georgia		Moldova		Ukraine	
DESTINA-TIONS	1995	2010	1995	2010	1995	2010	1995	2010	1995	2010	1995	2010
Austria	451	2549	150	947	424	1434	504	2695	343	1504	3272	7442
Belgium	130	5164	18	671	141	1417	90	1674	49	913	439	3014
Bulgaria	1649	1360	11	11	122	116	105	96	796	787	2283	2132
Cyprus	x	x	x	x	170	x	x	x	474	x	1649	x
Czech Rep.	866	2183	45	698	400	4463	239	887	176	8877	28158	124367
Denmark	105	595	44	292	56	554	31	207	8	299	239	6022
Estonia	x	x	x	x	14883	x	x	x	878	x	25185	x
Finland	5	72	1	83	10	219	2	34	1	91	49	958
France	4778	14732	292	3417	822	2819	976	6507	628	5369	5743	13338
Germany	9202	10344	1399	14038	2676	18703	4716	13465	2833	11972	29892	124293
Greece	188	4173	3	60	7	1139	383	14368	142	9440	454	18344
Hungary	71	128	46	71	188	185	106	159	59	237	4432	17241
Ireland	x	77	x	73	x	888	x	372	x	1788	x	2708
Italy	99	666	12	324	306	6975	63	6520	158	130948	1454	200730
Latvia	990	1003	2868	2645	71565	59580	1881	1756	2238	2218	49033	43417
Lithuania	683	821	1344	1508	56232	56170	899	1091	849	1161	20103	20956
Luxembourg	7	x	1	x	45	x	10	x	16	x	180	x
Malta	7	10	1	2	13	20	20	131	12	30	85	281
Netherlands	24	632	8	621	3	218	29	250	1	69	21	754
Poland	832	1647	251	270	104463	39739	324	395	329	405	309131	124846
Portugal	3	91	0	17	6	909	x	1094	x	15632	57	49487
Romania	0	3	0	3	0	0	0	1	39440	44564	14014	13077
Slovakia	87	69	12	20	28	204	18	58	20	89	2627	5786
Slovenia	0	7	0	4	30	104	0	15	3	287	268	1382
Spain	404	11138	x	x	79	3587	148	10772	26	17457	585	81886
Sweden		1672		2107	84	2049		859		446	610	4741
UK	x	1133	x	902	4591	1233	x	797	329	641	4164	13386
Total	20581	60269	6506	28784	257344	202725	10544	64203	49808	255224	504127	880588
Share on EaP total (%)	2.4	4	0.8	1.9	30.3	13.6	1.2	4.3	5.9	17.1	59.4	59

Source: Pytliková (2012)

Notes: Instead of year 1995, year: 1996 for Ireland, 1997 for Italy and Spain, 1998 for Belgium and Slovenia, 1999 for France, 2000 for Austria, Estonia and Luxembourg, 2001 for Bulgaria, Lithuania and Malta, 2002 for Cyprus, Poland and Romania, 2003 for Latvia. Instead of year 2010, year: 2009 for Belgium, Bulgaria, Romania and Spain, 2008 for France, Lithuania and Malta, and year 2006 for Greece.

Table A.3.: Overview of EaP migrant profiles based on country studies

		UK	Spain	Poland	Germany	Italy
Education	Primary-Low	18.7*[ab]	8/9**[b]	n.a.	20*[d]	7.2*[e]
	Secondary-Medium	14.7	34/44**	n.a.	31	69.1
	Tertiary-High	53.5	45/37**	25.9*[f]	44	23.7
	In Education	12.1	n.a.	18	20	n.a.
Age	Average Age	n.a.	37[g]	n.a.	44*[h]	n.a.
	Age Groups	36.4*[ij]	n.a.		n.a.	13[kl]
	(see notes)	44.5		53.3*[mn]		14
		12.9				21.5
		5.1				29.5
		1		1.4		21.5
Gender	Female	59.0[o]	56[p]	57.7*[q]	61*[r]	67[s]
	Male	41	44	42.3	39	23
Occupation	Low Skilled-Unskilled	47.1*[t]	90/94**[u]	24.2*[v]	25*[w]	96.5*[x]
	Medium Skilled	31.2	6.3	35.8	41	2.5
	High Skilled	21.7	4.3	1.4	34	0.9
Economic Activity	Employed	67.8*[y]	63/78** [z]	87.5*[aa]	31*[bb]	76/72* **[cc]
	Unemployed	7.8	n.a	n.a.	16	7.8
	Inactive	24.4	n.a.	n.a.	n.a.	19/22**
Sectoral Allocation[dd]	Manufacturing-Production	13.7*[ee]	0/10.24**[ff]	9.1*[gg]	16*[hh]	3.9/23.3* **[ii]
	Construction	6.5	0/42.19**	29.6	3	0/28.3**
	Retail-Hospitality	28.8	23.73/2.88**	2.3	17	8.7/10**
	Transport-Communications	2.9	n.a.	6.9	7	0.4/8.3**
	Business Services-Finances	24.5	n.a.	6.8	18[ij]	0/0**
	Public Services	15.8	n.a.	n.a.	33[kk]	0/0**
	Domestic Services	n.a.	56.23/2.56**	20.5		72.1/8.3**
	Agriculture	n.a.	3.71/4.15**	6.3	1[kk]	2.4/6.7**
	Other Services	7.9	4.71/1.58**	n.a.	n.a.	n.a.

Sources: Country studies: Biavaschi and Zimmermann, 2013; Clark and Drinkwater, 2013; Duszczyk, Góra and Kaczmarczyk, 2013; Farré and Rodríguez-Planas, 2013; and Marchetti, Piazzalunga and Venturini, 2013

Notes: * Refers to Ukrainian migrants only. ** Female/male

a Numbers for other EaP countries immigrants are comparable but differ slightly.

b Source: LFS (1999-2011) – Educational Categories of Working-Age Migrants from EaP Countries.

c Source: LFS (2000-2011) – The sample is restricted to individuals 16 to 64 years old who are heads of the household or spouses.

d Authors' calculations based on the German Microcensus 2008. In the education attainment data, 'in education' category includes people who are currently enrolled in some educational program but whose highest degree could be counted in the previous numbers.
e Authors' elaborations based on Istat LFS, 2011 second quarter.
f RDS survey (CMR) (country report, p. 41).
g P.16, country report.
h Authors' calculations based on the German Microcensus 2008.
i The age groups for the British country case study are: Under 25, 25-34, 35-44, 45-54, 55 & Over.
j Source: Department for Work and Pensions – Age Group of NINo Registrants from EaP Countries, 2002-2011.
k These numbers are based on estimates from the provided graph.
l Own calculations based on the authors' elaborations which are based on Istat, Residence Permits (Home Office data), 2011. Includes EaP migrants from Moldova and the Ukraine.
m The two age groups for the Polish country case study are: 15-35, 60 & over.
n RDS survey (CMR 2010) (p. 41).
o Source: Department for Work and Pensions – Gender Groups of NINo Registrants from EaP Countries, 2002-2011.
p Source: LFS (2000-2011) – The sample is restricted to individuals 16 to 64 years old who are heads of the household or spouses.
q RDS survey (CMR 2010) (country report, p. 41).
r Authors' calculations based on the German Microcensus 2008.
s Authors' elaborations based on Istat LFS, 2011 second quarter.
t Source: LFS (1999-2011) – Occupation of Employed of Working-Age Migrants from EaP Countries.
u Source: LFS (2000-2011) – The sample is restricted to individuals 16 to 64 years old who are heads of the household or spouses.
v The authors' elaboration based on the Ministry of Labor and Social Policy data, 2011.Only selected skill groups presented in the report.
w These numbers are based on estimates from the provided graph.
x Authors' elaborations based on Istat LFS, 2011 second quarter.
y Source: LFS (1999-2011) – Economic Activity of Working-Age Migrants from EaP countries.
z Source: LFS (2000-2011) – The sample is restricted to individuals 16 to 64 years old who are heads of the household or spouses.
aa RDS survey (CMR 2010) (country report, p. 41).
bb Authors' calculations based on the German Microcensus 2008.
cc Authors' elaborations based on Istat LFS, 2011, second quarter. (country report, p. 37).
dd Due to different categorisation in the different country case studies, not all categories have a value. Also, numbers might not add up to one hundred.
ee Source: LFS (1999-2011) – Sector of Employment for Working-Age Migrants from EaP Countries.
ff Source: LFS (2000-2011) – EaP Immigrants employed in the most common low skilled occupations.
gg The authors' elaboration based on the Ministry of Labor and Social Policy data, 2011. Note that the numbers for seasonal workers, the most important EaP migrant group in Poland, differs from this significantly. (country report, p. 45, 57).
hh Authors' calculations based on the German Microcensus 2008.
ii Authors' elaborations based on Istat LFS, 2011 second quarter.
jj This number pertains to activities in the Real Estate sector.
kk This number includes public & private services

13. ANNEX B

Table B.1 Skill categorisation

ISCO-1	Skill group
1 Legislators, senior officials and managers	high
2 Professionals	high
3 Technicians and associate professionals	high
4 Clerks	high intermediate
5 Service workers and shop and market sales workers	high intermediate
6 Skilled agricultural and fishery workers	low intermediate
7 Craft and related workers	low intermediate
8 Plant and machine operators and assemblers	low
9 Elementary occupations	low

Table B.2 Industry categorisation

NACE Code	Group	Nace
C,D, E	1	Manufacturing, mining and quarrying and other industry
F	2	Construction
G	3	Wholesale and retail trade
H,I	4	Transportation and storage, accommodation and food service
J,K	5	Information and communication, Financial and insurance activities
M	6	Education
N	7	Human health
O, P, Q	8	Public administration, defence, and social work activities
A, B	9	Agriculture, forestry and fishing

14. ANNEX C

TABLE C.1.: Visa policies: EU countries vis-à-vis EaP, as of September 2012

	Type	Applicable to	Duration	Specific documents	Costs (euro)
Italy	Short term (Schengen) C type visa Long term (national) D type visa for employment purposes Schengen long term visa	Third countries/ EaP countries Third countries/ EaP countries Third countries/ EaP countries	- stay up to 90 days within 180 day period); - stay over 90 days - stay up to 90 days	Proof of accommodation and financial means (return ticket, employment contract), medical insurance, proof of social and economic status Copy of work permit and work contract, proof of accommodation Proof of accommodation medical insurance	60/35 euro, for faster procedure – 70 105/70 60
Germany	Schengen short term C type visa National D type Long term visas including with the purpose of employment	Third-country nationals	- stay up to 90 days - stay over 3 months	Proof of purpose of travel, proof of financial means, health insurance, proof of ties with country of origin – salary sheet/tax record/enterprise registration/bank statement/property statement/pensioner certificate/registration record Employment contract, medical insurance, company information (for self-employment), proof of qualifications	60/35 60
Spain	Schengen short term C type visa Long-term national residence visas, including employment purposes	Third-country nationals/EaP countries Third-country nationals/EaP countries	- Up to 3 months - Stay over 90 days	Accommodation reservation, letter of invitation, proof of transportation reservation, substantial financial means (specific amounts – up to 561.60 euro for 9 days), medical insurance/certificates, income certificate/private company registration copy, abstracts from employment history, bank statement Work permit, criminal record, medical certificate, employment contract; business project including potential investments and copies of licenses (for self-employment)	35-visa facilitation agreement/65-with visa center fees/76-faster issuance/ 65

Poland	Schengen short term C type visa	Third-country nationals/EaP countries	- Up to 3 months	Proof of purpose of the visit, proof of accommodation, medical insurance, proof of financial means, income certificate/company registration certificate	35/60
	Long-term national D type visa, including employment purposes	Third-country nationals/EaP countries	Stay over 90 days	Certificate about issuance of work permit once the applicant arrives to Poland; Proof of purpose of the visit, proof of accommodation, medical insurance, proof of financial means, income certificate/company registration certificate	20 (Ukraine[32] and Belarus)/60
UK	Short term (general visit, family visit, business visit, student visit, entertainer visit, marriage/medical purpose, sport visit)	Third-country nationals/EaP countries	- up to 6 months	Information about income, employment, accommodation and travel details, purpose of the visit or proof of financial means and accommodation registration of the host person/organisation	106
	Long term (study and work)	Third-country nationals/EaP countries	1, 2, 5 or 10 years	Information about income, employment, accommodation and travel details, purpose of the visit or proof of financial means and accommodation registration of the host person/organisation	106,370, 676, 976

Source: Own compilation based on information provided by relevant national ministries and agencies. Special attention was paid to visas for employment.

[32] On June 6th, 2012 Poland agreed to waive fees for national visas for Ukrainian citizens

15. ANNEX D

Model description

The theoretical model is formulated in terms of individual utility maximization following the hypothesis of migration as an investment in human capital (Sjaastad (1962)). Hence, the individual migration probability depends on the difference in expected utility streams in the country of origin and the destination country minus the costs of migration. Utility streams are assumed to depend on expected income which is the product of the wage rate and the employment probability in each country. In forming their expectations on utility streams the model assumes that migrants give the most recent past the greatest weight and that this weight declines with time. Thus, the migration decision does not only depend on the current difference in utility streams but also on all expected future values. This implies that although for some migrants the current difference might be negative, the net present value of migration might become positive if they were to wait for an additional year.

Furthermore, the model assumes that the employment rates in the destination countries follow a binomial distribution. Hence, the model explicitly accounts for uncertainty in employment prospects which leads to a greater weight of employment prospects in the destination countries than in the risk-neutral Harris-Todaro model. Finally, to be able to estimate the model using aggregate-level migration data the individual probability concept is approximated by the aggregate migration rate.

In the reduced-form estimation equation of the model (for more details see Hatton (1995) and Fertig (2001) the dependent variable is the change in the migration rate (i.e. net-migration relative to the population) from country of origin h to the destination country d between the years t and t-1. For this variable a (log-)linear relationship is postulated to wage and employment rates in h and d, where changes over time as well as the levels of both economic variables enter the equation separately. This gives us the possibility to distinguish between short- and long-run determinants of migration flows.

Furthermore, the stock of migrants from h in d as well as the population shares of individuals aged 20-40 living in h and d, respectively, enter the equation via migration cost. The model also contains country of origin-specific intercepts which again enter the equation via the modelling of migration cost. Finally, the model is extended by a set of dummy variables covering policy regimes. This set contains a dummy which is one for all years in which country d restricted the access of workers from country h to its labour market partially; and zero otherwise. It further contains a set of destination country-specific dummies indicating the number of years with free access to workers from h.

Table D.1: Estimation results final specification

	Specification 1		Specification 2		Specification 3	
	Coeff.	t-value	Coeff.	t-value	Coeff.	t-value
Czech Republic[a]	0.0086	0.94	0.014	1.61	0.036**	3.37
Estonia[a]	0.02	1.63	0.021*	1.68	0.017	1.13
Hungary[a]	0.0059	0.66	0.0099	1.11	0.028**	2.81
Latvia[a]	0.014	1.58	0.014	1.5	-0.0033	-0.31
Lithuania[a]	0.03**	2.61	0.03**	2.54	0.0059	0.39
Slovak Republic[a]	0.012	1.19	0.013	1.27	0.01	0.62
Slovenia[a]	0.012	1.17	0.017*	1.74	0.042**	3.23
Czech Republic after accession	-	-	-	-	0.000052	0
Estonia after accession	-	-	-	-	0.033*	1.65
Hungary after accession	-	-	-	-	0.0066	0.57
Latvia after accession	-	-	-	-	0.046**	2.65
Lithuania after accession	-	-	-	-	0.054**	2.18
Slovak Republic after accession	-	-	-	-	0.0098	0.68
Slovenia after accession	-	-	-	-	0.0035	0.19
Lagged net migration rate	-0.86**	-4.14	-0.87**	-4.12	-0.9**	-4.21
Free Movement**	0.026**	3.24	-	-	-	-
First year of free movement	-	-	0.0094	0.83	0.006	0.58
Second year of free movement	-	-	0.028**	2.44	0.027**	2.56
Third year of free movement	-	-	0.037**	2.84	0.039**	3.13
Fourth year of free movement	-	-	0.041**	2.96	0.047**	3.47
Fifth year of free movement	-	-	0.029	1.08	0.033	1.3
Sixth year of free movement	-	-	0.026	1.1	0.033	1.5
Post accession	-	-	-	-	-0.0089389	-0.63
Partial restrictions dummy[b]	0.0046	0.88	0.0057	1.23	0.0038	0.69

(Log) Lagged PCI-ratio (in PPP) destination to home country	0.018*	1.67	0.02*	1.91	0.031**	2.9
(Log) Lagged employment rate home country	-0.05	-0.58	-0.089	-1.07	-0.28**	-3.11
(Log) Lagged employment rate destination country	0.084*	1.72	0.078	1.62	0.059	1.36
(Log) Lagged share of 20-39 years old in destination country	0.11	1.32	0.11	1.34	0.11	1.32
(Log) Lagged share of 20-39 years old in home country	0.0097	0.03	-0.043	-0.15	-0.067	-0.12
Delta of (log) PCI-ratio (in PPP) destination to home country	0.1	1.3	0.06	0.71	0.074	0.94
Delta of (log) employment rate home country	0.23	1.27	0.23	1.26	0.42**	2.08
Delta of (log) employment rate destination country	-0.034	-0.19	0.063	0.37	0.19	1.17
Lagged stock of migrants from home in destination country	$2x10^{-7}$ **	1.98	$2x10^{-7}$ **	2.12	$2x10^{-7}$ **	2.29
Constant	-0.21	-0.51	0.0031	0.01	0.93**	2.24
Number of observations	1,204		1,204		1,204	
R-squared	0.361		0.368		0.38	
(Wald test for) common intercept	rejected		rejected		rejected	

Reference categories: [a] Poland; [b] full restriction. * 10%, **5% significance level.

16. ANNEX E.

NiGEM description

NiGEM is a large-scale quarterly macroeconomic model of the world economy. Most OECD countries are modelled separately (about 50 countries), and the rest of the world is modelled through regional blocks: Latin America, Africa, East Asia, Developing Europe, OPEC and a Miscellaneous group mainly in West Asia.

Domestic demand, supply and the external sector are linked through the wage-price system, income and wealth, the financial and government sectors and competitiveness. The supply side of the economy is based on a CES production function with labour and capital as factor inputs. Wages are determined through a bargaining process and prices are determined as a mark-up over production costs. The wage-price system affects competitiveness and income and wealth (which feed into the external sector and domestic demand), as well as the government sector. The internal feedback between the external sector and the domestic demand is realised through the impact of net foreign assets and interest income on household income and wealth, and domestic demand feeding back into the external sector as a determinant of imports and FDI. The financial sector feeds into domestic demand through the impact of interest rates, and into the government sector through interest payments. The government sector affects consumption through the stock of government debt, affecting household wealth and income tax, which feed into real disposable income. Economies are linked through trade, competitiveness and financial markets and all the country models are solved simultaneously. A full description of the model can be found in Barrell et al (2002) and Holland et al. (2011).

Production and price setting

Central to each of the country models is the specification of the aggregate production function. NiGEM incorporates a constant-returns-to-scale CES production function with labour and capital as inputs, and labour-augmenting technical progress. This is embedded within a Cobb-Douglas framework to allow the factors of production to interact with oil usage:

$$Y = \gamma\{[\delta(K)^{-\rho} + (1-\delta)(Le^{tech})^{-\rho}]^{-1/\rho}\}^{\lambda} M^{1-\lambda}$$

where Y is real output, K is the total capital stock, L is labour input, *tech* is the rate of labour-augmenting technical progress, and M is oil output.

The production function constitutes the theoretical background for the specification of factor demand equations and provides a measure of capacity utilisation which

feeds into the price system. Demand for labour and capital are determined through profit maximisation of firms and this is associated with a unit cost (*UTC*) function:

$$UTC = (1/\gamma) * ((\delta^{\sigma}) * user^{1-\sigma} + ((1-\delta)^{\sigma}) * wage^{1-\sigma} e^{(\sigma-1)*tech})^{(1/(1-\sigma))},$$

where the unit cost is a function of the cost of capital (*user*) and the cost of labour (*wage*).

The above theoretical framework implies that the associated steady state price (*P*) equation is a mark-up over unit costs, with the dynamics of the mark-up depending upon capacity utilisation (*cu*):

$$P = \theta * UTC * e^{\pi * cu}$$

Labour markets

In NiGEM we assume that labour markets embody rational expectations, and that wage bargainers use model consistent expectations. Firms determine the optimal level of employment according to their labour demand curves, derived from the production function. The bargaining takes place over real wages. Real wages (*W/P*), therefore, depend on the level of trend productivity (*Y/L*) and the rate of unemployment (*U*) and we can write the wage equation as:

$$\ln(W/P) = \alpha + \ln(Y/L) - \beta U$$

An estimate of NAIRU, which is an equilibrium concept corresponding to the rate of unemployment that would prevail were the endogenous wage and price variables at their equilibrium levels, can be easily derived from the model, as the wage and price system is complete and the model delivers equilibrium levels of employment and unemployment.

Labour supply is determined by demographics, migration and participation rate. Inward migration increases population.

Labour demand is brought in line with labour supply via wage and employment adjustments and the speeds of adjustment of both wages and employment are estimated and vary across countries.

17. ANNEX F

Table F.1. Three scenarios - GDP comparison (% deviations from no-migration benchmark[33])

	Belgium			Czech Republic			Denmark			Estonia			Finland			France			Germany		
	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progre
2011	0.01	0.03	0.03	0.01	0.03	0.03	0.03	0.11	0.11	0.04	-0.03	-0.04	0.02	0.06	0.07	0.00	0.01	0.00	0.01	0.01	0.01
2012	0.02	0.07	0.06	0.03	0.07	0.07	0.06	0.22	0.22	0.12	-0.05	-0.05	0.05	0.12	0.13	0.01	0.01	0.01	0.01	0.02	0.02
2013	0.04	0.10	0.10	0.04	0.11	0.11	0.09	0.35	0.36	0.25	-0.01	-0.02	0.07	0.20	0.20	0.01	0.02	0.02	0.02	0.03	0.04
2014	0.05	0.14	0.15	0.05	0.15	0.14	0.13	0.48	0.52	0.43	0.07	0.07	0.11	0.28	0.30	0.01	0.03	0.03	0.02	0.05	0.05
2015	0.07	0.18	0.22	0.07	0.19	0.20	0.17	0.61	0.70	0.64	0.18	0.20	0.14	0.37	0.43	0.02	0.04	0.05	0.03	0.06	0.08
2016	0.09	0.23	0.31	0.08	0.25	0.29	0.22	0.73	0.92	0.87	0.28	0.36	0.18	0.47	0.58	0.03	0.06	0.07	0.04	0.08	0.11
2017	0.11	0.28	0.42	0.11	0.33	0.41	0.26	0.84	1.20	1.15	0.37	0.59	0.23	0.56	0.78	0.03	0.07	0.11	0.04	0.11	0.15
2018	0.14	0.33	0.53	0.14	0.42	0.55	0.31	0.96	1.53	1.48	0.44	0.88	0.28	0.66	1.01	0.04	0.09	0.14	0.05	0.13	0.19
2019	0.16	0.38	0.63	0.17	0.52	0.69	0.36	1.07	1.85	1.85	0.50	1.19	0.33	0.76	1.23	0.05	0.10	0.17	0.06	0.16	0.23
2020	0.18	0.42	0.72	0.21	0.63	0.82	0.40	1.16	2.11	2.27	0.55	1.50	0.37	0.84	1.44	0.05	0.11	0.20	0.07	0.19	0.28
	Greece			Hungary			Ireland			Italy			Lithuania			Latvia			Austria		
	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progre
2011	0.04	0.06	0.06	0.01	0.02	0.02	0.01	0.03	0.00	0.01	0.01	0.01	0.02	-0.03	-0.03	0.03	-0.03	-0.03	0.02	0.07	0.07
2012	0.08	0.14	0.15	0.03	0.05	0.04	0.04	0.10	0.08	0.01	0.04	0.03	0.05	-0.05	-0.06	0.07	-0.05	-0.05	0.03	0.13	0.13
2013	0.11	0.20	0.22	0.03	0.06	0.06	0.08	0.21	0.19	0.03	0.06	0.06	0.10	-0.09	-0.09	0.16	-0.10	-0.11	0.05	0.21	0.21
2014	0.13	0.25	0.29	0.04	0.07	0.07	0.13	0.33	0.32	0.04	0.09	0.09	0.17	-0.07	-0.07	0.28	-0.08	-0.08	0.08	0.30	0.32
2015	0.16	0.30	0.38	0.04	0.07	0.09	0.19	0.46	0.49	0.05	0.13	0.13	0.25	-0.04	-0.03	0.39	-0.03	-0.03	0.10	0.39	0.44
2016	0.19	0.34	0.49	0.05	0.08	0.14	0.25	0.60	0.68	0.06	0.16	0.18	0.36	-0.02	0.04	0.53	-0.01	0.01	0.13	0.48	0.60
2017	0.22	0.39	0.61	0.06	0.10	0.21	0.33	0.76	0.93	0.08	0.20	0.24	0.47	0.00	0.11	0.69	0.00	0.09	0.17	0.59	0.79
2018	0.25	0.44	0.73	0.07	0.11	0.27	0.41	0.94	1.23	0.09	0.25	0.31	0.60	0.02	0.20	0.87	0.02	0.24	0.20	0.70	1.01
2019	0.28	0.48	0.84	0.08	0.11	0.28	0.49	1.11	1.58	0.11	0.29	0.37	0.74	0.03	0.31	1.07	0.03	0.41	0.23	0.80	1.21
2020	0.31	0.52	0.92	0.09	0.10	0.26	0.58	1.29	1.96	0.12	0.33	0.43	0.90	0.03	0.42	1.30	0.03	0.56	0.26	0.89	1.39
	Poland			Portugal			Sweden			Slovenia			Spain			Slovakia			UK		
	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progr	closed	cautio	progre
2011	0.00	0.01	0.01	0.02	0.03	0.03	0.01	0.04	0.04	0.02	0.08	0.08	0.01	0.01	0.01	0.02	0.04	0.04	0.00	0.01	0.01
2012	0.01	0.02	0.02	0.04	0.07	0.07	0.03	0.08	0.08	0.09	0.29	0.28	0.02	0.03	0.03	0.06	0.08	0.08	0.01	0.03	0.02
2013	0.02	0.04	0.03	0.06	0.10	0.11	0.04	0.13	0.13	0.19	0.59	0.57	0.04	0.05	0.05	0.11	0.13	0.13	0.02	0.05	0.05
2014	0.02	0.05	0.05	0.09	0.14	0.16	0.06	0.19	0.20	0.32	0.93	0.91	0.05	0.08	0.09	0.16	0.18	0.19	0.02	0.07	0.07
2015	0.02	0.06	0.07	0.12	0.18	0.23	0.09	0.26	0.30	0.46	1.27	1.27	0.07	0.11	0.13	0.23	0.22	0.25	0.03	0.09	0.11
2016	0.03	0.07	0.10	0.14	0.21	0.31	0.12	0.33	0.42	0.61	1.58	1.76	0.09	0.14	0.18	0.31	0.25	0.37	0.04	0.11	0.15
2017	0.03	0.08	0.14	0.17	0.25	0.41	0.15	0.41	0.57	0.77	1.88	2.49	0.11	0.17	0.24	0.39	0.27	0.56	0.05	0.14	0.19
2018	0.04	0.09	0.18	0.20	0.28	0.52	0.19	0.50	0.74	0.96	2.17	3.52	0.13	0.20	0.30	0.49	0.27	0.82	0.06	0.16	0.24
2019	0.04	0.10	0.21	0.23	0.31	0.63	0.22	0.58	0.91	1.17	2.45	4.73	0.14	0.23	0.36	0.59	0.28	1.15	0.07	0.18	0.28
2020	0.05	0.10	0.22	0.25	0.34	0.72	0.26	0.65	1.09	1.40	2.73	6.04	0.16	0.26	0.41	0.69	0.29	1.51	0.07	0.19	0.32

[33] Scenario of no migration from the EaP countries. The benchmark is the same for all scenarios: Closed Europe, Cautious Europe, and Progressive Europe.

Table F.2. Three scenarios – unemployment rate comparison (percentage point deviations from no-migration benchmark)

	Belgium			Czech Republic			Denmark			Estonia			Finland			France			Germany		
	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progre
2011	0.01	0.04	0.04	0.04	0.11	0.11	0.02	0.08	0.08	0.07	-0.08	-0.08	0.03	0.07	0.09	0.00	0.01	0.01	0.00	0.00	0.01
2012	0.02	0.08	0.08	0.07	0.21	0.21	0.02	0.09	0.09	0.10	0.05	0.05	0.03	0.10	0.10	0.00	0.01	0.01	0.00	0.00	0.00
2013	0.03	0.10	0.09	0.10	0.30	0.30	0.01	0.05	0.05	0.12	0.09	0.09	0.02	0.06	0.04	0.00	0.01	0.01	0.00	0.01	0.01
2014	0.04	0.11	0.10	0.12	0.36	0.36	0.01	0.04	0.03	0.13	0.07	0.07	0.01	0.02	-0.01	0.01	0.01	0.01	0.00	0.01	0.01
2015	0.04	0.12	0.11	0.14	0.40	0.41	0.01	0.04	0.04	0.14	0.05	0.07	0.01	0.01	0.02	0.01	0.01	0.01	0.00	0.01	0.01
2016	0.05	0.12	0.16	0.15	0.43	0.51	0.02	0.05	0.14	0.15	0.04	0.14	0.02	0.03	0.16	0.00	0.01	0.02	0.00	0.01	0.02
2017	0.06	0.12	0.25	0.16	0.47	0.65	0.02	0.05	0.21	0.17	0.03	0.19	0.03	0.05	0.25	0.00	0.00	0.02	0.00	0.02	0.02
2018	0.07	0.13	0.35	0.17	0.51	0.80	0.03	0.06	0.24	0.20	0.03	0.21	0.03	0.04	0.22	0.01	0.00	0.03	0.00	0.02	0.03
2019	0.08	0.14	0.41	0.19	0.56	0.90	0.03	0.07	0.16	0.22	0.02	0.16	0.03	0.04	0.09	0.01	0.00	0.03	0.01	0.02	0.03
2020	0.09	0.15	0.45	0.20	0.60	0.95	0.03	0.06	0.14	0.21	0.02	0.13	0.03	0.03	0.04	0.01	0.00	0.03	0.00	0.02	0.02
	Greece			Hungary			Ireland			Italy			Lithuania			Latvia			Austria		
	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progre
2011	0.01	0.02	0.02	0.01	0.00	0.00	0.05	0.14	0.14	0.01	0.02	0.02	0.03	-0.07	-0.07	0.04	-0.05	-0.05	0.01	0.08	0.08
2012	0.01	0.03	0.03	0.03	0.00	0.00	0.05	0.12	0.12	0.01	0.02	0.02	0.04	0.00	0.00	0.06	0.00	0.00	0.01	0.06	0.06
2013	0.01	0.02	0.02	0.04	0.00	0.00	0.02	0.04	0.03	0.01	0.01	0.02	0.05	0.03	0.03	0.07	0.03	0.03	0.01	0.03	0.03
2014	0.01	0.02	0.01	0.05	-0.02	-0.02	0.01	0.01	0.01	0.00	0.01	0.01	0.05	0.02	0.02	0.06	0.02	0.02	0.01	0.04	0.03
2015	0.01	0.02	0.02	0.05	-0.03	-0.03	0.02	0.03	0.05	0.00	0.01	0.01	0.06	0.01	0.02	0.07	0.01	0.01	0.01	0.04	0.05
2016	0.02	0.03	0.06	0.06	-0.04	0.03	0.03	0.04	0.18	0.00	0.01	0.02	0.06	0.01	0.04	0.08	0.01	0.05	0.01	0.04	0.11
2017	0.02	0.03	0.10	0.07	-0.03	0.13	0.03	0.04	0.24	0.01	0.02	0.03	0.07	0.00	0.07	0.10	0.00	0.09	0.02	0.04	0.15
2018	0.02	0.03	0.12	0.07	-0.01	0.25	0.03	0.03	0.22	0.01	0.02	0.03	0.08	0.00	0.08	0.11	0.00	0.10	0.02	0.05	0.15
2019	0.02	0.03	0.10	0.08	0.00	0.30	0.03	0.04	0.09	0.01	0.02	0.02	0.09	0.00	0.06	0.13	0.00	0.07	0.02	0.05	0.10
2020	0.03	0.04	0.08	0.09	0.01	0.30	0.02	0.03	0.03	0.01	0.02	0.02	0.09	0.00	0.05	0.13	0.00	0.06	0.02	0.05	0.09
	Poland			Portugal			Sweden			Slovenia			Spain			Slovakia			UK		
	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progre
2011	0.00	0.00	0.00	0.02	0.03	0.03	0.01	0.04	0.04	0.06	0.19	0.19	0.01	0.01	0.01	0.03	0.03	0.03	0.00	0.01	0.01
2012	0.00	0.00	0.00	0.02	0.04	0.04	0.01	0.02	0.02	0.08	0.23	0.23	0.01	0.01	0.01	0.04	0.03	0.04	0.00	0.01	0.01
2013	0.00	0.00	0.00	0.02	0.03	0.03	0.01	0.02	0.02	0.08	0.21	0.21	0.01	0.01	0.01	0.04	0.03	0.03	0.00	0.01	0.01
2014	0.01	0.00	0.00	0.02	0.02	0.01	0.01	0.02	0.02	0.08	0.18	0.19	0.00	0.01	0.00	0.04	0.02	0.01	0.00	0.01	0.01
2015	0.01	-0.01	-0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.09	0.16	0.22	0.00	0.00	0.00	0.04	0.00	0.02	0.00	0.01	0.00
2016	0.01	-0.01	0.00	0.03	0.02	0.07	0.01	0.02	0.07	0.10	0.15	0.49	0.00	0.00	0.01	0.04	-0.01	0.11	0.00	0.01	0.01
2017	0.01	-0.01	0.02	0.03	0.03	0.14	0.01	0.02	0.08	0.11	0.14	0.71	0.00	0.00	0.02	0.05	0.00	0.20	0.00	0.01	0.02
2018	0.01	-0.01	0.04	0.04	0.04	0.17	0.01	0.02	0.09	0.12	0.14	0.84	0.01	0.01	0.03	0.05	0.01	0.25	0.00	0.01	0.03
2019	0.01	-0.01	0.05	0.05	0.04	0.14	0.01	0.02	0.06	0.14	0.14	0.73	0.01	0.01	0.03	0.06	0.02	0.21	0.01	0.01	0.04
2020	0.02	0.00	0.06	0.05	0.04	0.13	0.01	0.01	0.05	0.13	0.12	0.63	0.01	0.01	0.03	0.06	0.02	0.18	0.01	0.01	0.04

Table F.3. Three scenarios – inflation rate comparison (percentage point deviations from no-migration benchmark)

	Belgium			Czech Republic			Denmark			Estonia			Finland			France			Germany		
	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progre
2011	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.03	-0.02	0.04	0.04	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00
2012	0.00	-0.01	-0.01	-0.01	-0.03	-0.03	-0.02	-0.07	-0.07	-0.08	0.07	0.07	-0.01	-0.03	-0.04	0.00	0.00	-0.01	0.00	0.00	-0.01
2013	0.00	-0.01	-0.02	-0.02	-0.05	-0.05	-0.01	-0.05	-0.05	-0.13	-0.03	-0.04	-0.02	-0.05	-0.06	0.00	0.00	-0.01	0.00	0.00	-0.01
2014	-0.01	-0.02	-0.03	-0.03	-0.07	-0.08	-0.01	-0.03	-0.03	-0.17	-0.09	-0.09	-0.02	-0.06	-0.06	0.00	-0.01	-0.01	-0.01	-0.01	-0.02
2015	-0.01	-0.03	-0.03	-0.03	-0.09	-0.10	-0.01	-0.04	-0.03	-0.19	-0.09	-0.08	-0.03	-0.07	-0.06	0.00	-0.01	-0.01	-0.01	-0.02	-0.02
2016	-0.01	-0.04	-0.04	-0.04	-0.11	-0.12	-0.01	-0.04	-0.06	-0.20	-0.08	-0.09	-0.03	-0.09	-0.08	0.00	-0.01	0.00	-0.01	-0.03	-0.02
2017	-0.02	-0.04	-0.05	-0.05	-0.13	-0.15	-0.02	-0.05	-0.14	-0.22	-0.06	-0.15	-0.04	-0.10	-0.14	0.00	0.00	-0.01	-0.01	-0.03	-0.03
2018	-0.02	-0.05	-0.07	-0.05	-0.15	-0.20	-0.02	-0.06	-0.19	-0.24	-0.05	-0.23	-0.05	-0.11	-0.21	0.00	0.00	-0.01	-0.01	-0.04	-0.04
2019	-0.03	-0.06	-0.10	-0.06	-0.17	-0.24	-0.03	-0.07	-0.18	-0.26	-0.04	-0.27	-0.06	-0.12	-0.26	0.00	-0.01	-0.01	-0.02	-0.05	-0.06
2020	-0.03	-0.07	-0.13	-0.07	-0.19	-0.28	-0.04	-0.08	-0.16	-0.28	-0.04	-0.25	-0.07	-0.13	-0.30	-0.01	-0.01	-0.02	-0.02	-0.06	-0.08
	Greece			Hungary			Ireland			Italy			Lithuania			Latvia			Austria		
	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progre
2011	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.03	-0.04	0.00	0.00	-0.01	0.00	0.03	0.03	0.00	0.02	0.02	0.00	-0.02	-0.02
2012	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.08	-0.09	-0.01	-0.02	-0.02	-0.04	0.13	0.12	-0.07	0.14	0.13	-0.01	-0.05	-0.05
2013	0.00	0.00	0.00	-0.01	0.00	0.00	-0.04	-0.09	-0.10	-0.01	-0.02	-0.02	-0.07	0.05	0.05	-0.15	0.06	0.06	-0.01	-0.04	-0.04
2014	0.00	-0.01	0.00	-0.01	0.00	0.00	-0.04	-0.09	-0.09	-0.01	-0.01	-0.02	-0.10	-0.03	-0.03	-0.14	-0.08	-0.08	-0.01	-0.04	-0.04
2015	-0.01	-0.01	-0.01	-0.01	0.01	0.00	-0.04	-0.09	-0.10	-0.01	-0.02	-0.02	-0.12	-0.02	-0.01	-0.13	-0.02	0.00	-0.01	-0.05	-0.05
2016	-0.01	-0.02	-0.01	-0.01	0.01	0.00	-0.05	-0.10	-0.13	-0.01	-0.02	-0.01	-0.12	-0.02	0.01	-0.16	0.01	0.04	-0.02	-0.06	-0.07
2017	-0.02	-0.03	-0.03	-0.02	0.01	-0.01	-0.05	-0.11	-0.20	-0.01	-0.02	-0.02	-0.12	-0.02	-0.03	-0.18	-0.02	-0.07	-0.02	-0.06	-0.11
2018	-0.03	-0.04	-0.05	-0.02	0.00	-0.03	-0.06	-0.11	-0.26	-0.01	-0.03	-0.03	-0.13	-0.01	-0.11	-0.21	0.00	-0.16	-0.02	-0.07	-0.14
2019	-0.03	-0.06	-0.09	-0.03	0.00	-0.05	-0.06	-0.12	-0.28	-0.01	-0.03	-0.04	-0.16	-0.01	-0.17	-0.25	0.01	-0.20	-0.03	-0.08	-0.16
2020	-0.04	-0.07	-0.13	-0.03	0.00	-0.07	-0.07	-0.12	-0.28	-0.02	-0.05	-0.06	-0.19	-0.01	-0.17	-0.29	-0.01	-0.18	-0.03	-0.09	-0.17
	Poland			Portugal			Sweden			Slovenia			Spain			Slovakia			UK		
	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progr	close	cautic	progre
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.03	-0.10	-0.09	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00
2012	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.03	-0.03	-0.10	-0.32	-0.31	0.00	0.00	-0.01	-0.04	-0.03	-0.04	0.00	0.00	-0.01
2013	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.04	-0.04	-0.14	-0.43	-0.43	0.00	0.00	-0.01	-0.06	-0.04	-0.05	0.00	-0.01	-0.01
2014	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.05	-0.05	-0.17	-0.44	-0.44	0.00	0.00	-0.01	-0.07	-0.04	-0.04	0.00	-0.01	-0.01
2015	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.06	-0.06	-0.17	-0.39	-0.40	-0.01	0.00	0.00	-0.07	-0.02	-0.01	0.00	-0.01	-0.01
2016	0.00	0.00	0.00	-0.01	-0.02	-0.01	-0.02	-0.07	-0.07	-0.18	-0.34	-0.50	-0.01	0.00	0.01	-0.08	0.00	-0.04	0.00	-0.02	-0.01
2017	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.03	-0.07	-0.10	-0.20	-0.31	-0.88	0.00	0.00	0.01	-0.08	0.02	-0.16	0.00	-0.02	-0.01
2018	0.00	0.00	0.00	-0.02	-0.02	-0.03	-0.03	-0.08	-0.15	-0.23	-0.30	-1.37	-0.01	0.00	0.00	-0.09	0.01	-0.32	-0.01	-0.02	-0.01
2019	0.00	0.00	0.00	-0.02	-0.02	-0.06	-0.04	-0.08	-0.19	-0.27	-0.29	-1.72	-0.01	-0.01	-0.01	-0.10	-0.02	-0.43	-0.01	-0.02	-0.03
2020	-0.01	0.00	-0.01	-0.03	-0.03	-0.08	-0.05	-0.09	-0.23	-0.30	-0.29	-1.76	-0.01	-0.02	-0.03	-0.11	-0.04	-0.43	-0.01	-0.02	-0.05