Opportunities and challenges for labour mobility in times of crisis and beyond

A background paper for the Informal Meeting of Ministers of Labour and Social Affairs during the International Labour Conference

Geneva, 16 June 2009
Table of contents

1. Introduction ......................................................................................................................... 1
2. Demographic and labour market challenges ................................................................. 2
   2.1 Demographic developments ......................................................................................... 2
   2.2 Labour market trends ................................................................................................. 3
   2.3 Changes in employment structures ........................................................................... 4
   2.4 The financial crisis: Job shedding in sectors with large migrant employment levels ......................................................................................................................... 5
3. Skills trends and shortages in Europe and in the selected sending countries ............ 6
   3.1 Skill and labour shortages in the European Union ..................................................... 6
   3.2 The current economic crisis and skills demand ......................................................... 9
   3.3 Morocco .................................................................................................................... 9
   3.4 Turkey ....................................................................................................................... 10
   3.5 Ukraine .................................................................................................................... 11
4. Current labour mobility trends ....................................................................................... 11
   4.1. Labour mobility within the European Union .......................................................... 11
   4.2. Outward labour mobility trends – Morocco ......................................................... 12
   4.3. Outward labour mobility trends - Turkey ............................................................. 13
   4.4. Outward labour mobility trends - Ukraine ........................................................... 13
5. Discussion of selected mobility strategies and policy responses ................................. 14
   5.1. Intra-EU mobility: Coherence of policy objectives ............................................... 14
   5.2. Competition for global talent and brain drain ....................................................... 15
   5.3. From brain drain to brain gain: a win-win solution? ............................................. 16
   5.4. Ensuring the effectiveness of temporary foreign worker programmes .................. 17
   5.5. Circularity and return in times of crisis ................................................................. 18
   5.6. The role of the social partners and tripartite consultations .................................. 19
6. Suggested points for discussion ..................................................................................... 20

References .......................................................................................................................... 21
Opportunities and challenges for labour mobility in times of crisis and beyond

1. Introduction

Geographical labour mobility, including across borders, offers a number of potential gains. These stem from the relocation of labour from regions with a surplus of workers to regions with labour shortages, as well as the more efficient allocation of labour to activities and regions where it is (presumably) more productive and can generate more income. In particular, voluntary job-to-job mobility may help employees enhance their employability, income and career prospects, while greater labour mobility increases the flexibility and adaptability of companies, with positive effects on their competitiveness through cost reduction and higher productivity.

Over the past twenty years, labour markets in Europe have experienced tremendous changes. The fall of the Iron Curtain in 1989 and the break up of the USSR in 1991 brought about a new wave of labour migration from the former Soviet bloc to Western Europe, where it contributed to a partial (and temporary) mitigation of the negative impacts of the ageing of the population. A sharp deterioration in the labour market situation of the former centrally planned economies, due to massive job destruction during the transition process, as well as the opening up of borders, prompted young people to seek education and employment opportunities in Western Europe and the United States. While this slightly improved unemployment figures in the countries of origin of migrant workers, it also had the effect of aggravating the age structure of their working population and implied an important brain drain.

From the mid-1990s, progress in the economic integration of Central European and Baltic countries accelerated inflows of foreign direct investment creating new jobs, which gradually outnumbered those that had been destroyed, with the result that young people could find better jobs at home, with many of them returning from abroad. Labour migration from these countries therefore slowed down markedly. The adoption of the European Employment Strategy has influenced employment policies in the EU-15 countries and contributed to their positive employment development. Rapid economic growth in Central and Eastern European countries in the 2000s eventually led to a significant improvement in their labour markets and even the emergence of shortages of skilled labour. The labour shortages further deepened after the accession of these countries to the European Union in May 2004 and January 2007, when barriers to the free movement of workers were lifted in Ireland, Sweden and the United Kingdom, and hundreds of thousands of young people made use of this right to free movement for, mostly temporary, employment.

The current economic crisis is again destabilizing the labour markets in European countries causing the dismissal of many workers in both the West and the East, including many migrant workers and those that have used their right to free intra-EU movement, with the pool of available vacancies drying up. Dismissed migrant workers face great difficulties in finding new jobs in their host country, with fewer remittances being sent home as a consequence. However, returning to their country of
origin is not a viable option for many of them, due to the unavailability of good jobs there. Staying outside the labour market would rapidly worsen their skills. Once the crisis is over and national economies recover, the challenges of the ageing of the population and the shortage of skilled labour will re-emerge, stimulating competition between countries for skilled workers and calling for action by the EU and by countries of origin.

This paper has been prepared for the Informal Ministerial Meeting under the Czech EU Presidency. Its aim is to stimulate discussion on appropriate action to boost labour mobility within Europe for the benefit of both countries that host migrant workers and countries of origin, as well as migrant workers themselves, while at the same time endeavouring to mitigate the negative impacts of the brain drain and labour shortages. The paper is structured as follows. The next section briefly addresses the demographic and labour market challenges facing the EU, and the other three countries invited to this Meeting, which have large groups of their nationals in the EU. The third section analyses the situation and trends with regard to skills supply and demand, pointing to future skill shortages to be filled, among other factors, through migration. The fourth section describes current labour mobility trends in the EU and the three targeted countries. The fourth section discusses selected mobility strategies and policy responses to migration challenges, and the last section suggests some points for discussion.

The three countries invited to the Informal Ministerial Meeting, and therefore covered by this paper are Morocco, Turkey and the Ukraine. Relations between the EU and these three non-EU countries are based on differing institutional arrangements and frameworks. Turkey is an EU candidate country. The relations between Morocco and Ukraine and the EU are based on specific association agreements and partnerships.

2. Demographic and labour market challenges

2.1 Demographic developments

The working age population (aged 15 – 64) in EU countries (the current Members of the EU-27) has been increasing in both absolute and relative terms since 1990 up until now. In 2010 it will reach 68 per cent of the total population. However, both EU sub-regions, the EU-15 (EU Members before 2004) and the EU-10 (new EU Members from Central and South East Europe) have contributed to this development in differing ways. While the working age population in the EU-15 will have grown in total by 6.7 per cent between 1990 and 2010, in the EU-10 the rise will only be 2.8 per cent, mainly due to a significant population fall in countries recording a net emigration balance, namely Bulgaria, Latvia, Lithuania and Romania, where this decline already started in the early 1990s. Interestingly, the largest new EU Member country, Poland, despite high emigration flows, has still recorded a 10.4 per cent increase in its working age population over the past 20 years.

After 2010, the EU-27 will face a decline in its potential labour supply. While in the EU-15 this decline will still be rather mild until 2015, in the EU-10 it will be rather dramatic: a fall of 3.1 per cent between 2010 and 2015 according to the latest UN
projection (UN, 2008). In addition to the four new EU Member countries referred to above, Poland will also experience a significant reduction in its working age population. The ageing of the population will therefore have a significant negative impact on the supply side of the EU labour market.

An important source of the growth in the working age population in the EU-27 after 1990 has been migration from countries outside the EU – from the Maghreb and sub-Saharan Africa, Latin America, Asia and Eastern Europe. Workers from Morocco, Turkey and Ukraine belong to the largest groups of foreign workers in the EU. Demographic development in Morocco and Turkey has been favourable, and the working age population has rapidly increased there since 1990, both in numbers and as a share of the total population (although fertility rates have now dropped considerably in the Maghreb countries, including Morocco, and are now below the replacement rate). In contrast, the Ukraine has experienced a constant decline of its working age population. The same demographic trends in these three countries, creating a migration potential in Morocco and Turkey, and a further reduction of this potential in the Ukraine, will also continue after 2010.

2.2 Labour market trends

In the 1990s, labour market developments in the two sub-regions of the current EU-27 were very different. While in the EU-15, the second half of the 1990s, in particular, was marked by a significant increase in the employment rate, mainly due to the massive entry of women into the labour market and a rapid decline in the unemployment rate, the EU accession countries continued to experience falling employment rates and a high level of joblessness, even though their national economies had already started recovering. In the late 1990s, their male employment rate was shrinking more rapidly than that of women, with the result that in 2000 the average male employment rate in the EU-10 was 9 percentage points below that of the EU-15. This was caused by the contrasting trends in the women’s employment rate in the two EU sub-regions; despite the much higher level of women’s employment in the former centrally planned economies before 1990, the average women’s employment rate in the EU-15 already exceeded that of the EU-10 by 0.4 percentage points in 2000. The favourable labour market situation in EU-15 therefore attracted additional migrant workers, while the latter group of countries struggled to find new employment opportunities for their native workers, who had lost jobs during the massive enterprise restructuring.

After 2000, the labour market situation also gradually improved in the EU accession countries. Unemployment started to decline and employment finally recorded significant gains in most of these countries. EU accession further accelerated these positive trends. As a result, the average total employment rate for the EU-27 reached 65.4 per cent in 2007 (67 per cent in the EU-15 and 63.2 per cent in the EU-10). The whole employment gain after 2000 has to be attributed to additional women workers entering the labour market. The gap in employment rates between both sub-regions has further deepened, to the benefit of the EU-15. Nevertheless, in addition to accelerated internal labour mobility, the whole of the EU-27 has increased its capacity

---

1 The 2008 Revision of the UN population estimates and projections. See http://esa.un.org/unpp/index.asp.
to absorb migrant workers from outside the EU, and indeed employers have increasingly called for new migrant workers, in particular those possessing skills lacking in the domestic labour market, to overcome labour shortages.

In the three non-EU sending countries covered by this paper, the labour market situation has not developed positively since the mid-1990s. In Morocco, the employment rate declined for the total population, for men and for women to, respectively, 53.9 per cent, 82.8 per cent and 26.6 per cent in 2007, preserving the vast gender gap in employment and in labour force participation rates. At the same time, unemployment also fell to 10.0 per cent for both men and women. Turkey faced a similar negative development in its employment rates, reaching 45.8 per cent for the total population, 71.3 per cent for men and 24.8 per cent for women in 2007, while unemployment steadily increased to 9.8 per cent for men and 10.3 per cent for women. In the Ukraine, the employment rate declined in the second half of the 1990s, and stagnated afterwards at the levels of 67.8 per cent for the total population, 72.2 per cent for men and 63.7 per cent for women in 2007. In contrast, the unemployment rate fell constantly over this period to 6.7 per cent for men and 6 per cent for women. The adverse labour market situation in all three countries, in addition to substantial wage differences compared to the EU, therefore creates a stimulus for labour migration to richer countries, if administrative and legal conditions so allow.

The outbreak of the current economic crisis has reversed the favourable labour market trends in the EU in the short term. According to the latest EU estimates (EC, 2009), employment will decline by 1.6 per cent in 2009 and by 0.5 per cent in 2010. The average EU unemployment rate is predicted to increase by 2.5 percentage points between 2008 and 2010 and to reach 9.5 per cent in 2010. The short-term perspective for workers on precarious labour contracts, many of whom are migrant workers, is not therefore good, as they are the first to be laid off, as clearly shown by enterprise and public employment service data. Moreover, new labour market entrants, and particularly school leavers without work experience, and jobseekers from disadvantaged population groups, including jobless migrant workers, have difficulty in finding new jobs. This will create pressure on decision-makers to launch programmes for the return of migrant workers to their countries of origin, as noted in greater detail below.

2.3 Changes in employment structures

Since 1995, there has been a continuous trend of the “flexibilization” of employment relations, reflecting the need for greater adaptability at the enterprise level (ILO, 2009). There has been a spectacular growth in part-time employment in the EU-15, and also in temporary employment in 16 of the EU-27 countries. A special type of temporary employment is agency work, when workers are employed on a temporary basis by an employment agency, which then hires them out to enterprises or institutions seeking temporary labour. Data on the number of agency workers are incomplete, but show a rapid increase. The number of agency workers was estimated at 8 million in the EU-27 in 2006. The many disadvantages connected with temporary jobs, depending on the specific provisions of national legislation and collective agreements, include: lower pay; less access to training and services provided by the enterprise (such as enterprise childcare facilities); a lower level of coverage by social security schemes; fewer opportunities for promotion; and difficulties in obtaining
housing loans from banks. Working conditions and social security protection are even worse in the case of temporary workers. Temporary or agency workers are concentrated among young persons, older persons and migrant workers. In times of crisis, agency workers are among the first to be laid off, followed by other temporary workers when the recession deepens, as it is now doing.

The potential to create temporary or permanent jobs for migrant workers also depends on the sectoral employment structure and its trends. In the EU-27, and in both EU sub-regions, the general tendency over the past 20 years has been for a decline in the share of agricultural employment in total employment, counterbalanced by an increase in the share of employment in services. In the EU-15, the average share of agricultural employment had already fallen to 3.5 per cent of total employment by 2007, while in the EU-10 it was still above 10 per cent (11 per cent in 2007), although declining rapidly. The proportion of employment in services exceeded 70 per cent of total employment in the EU-15 after 2000, compared with, despite rapid growth, an average of only 56.4 per cent in the EU-10 in 2007.

However, the main difference is in industry, where the share of total employment has been steadily declining, to 23.5 per cent in the EU-15 in 2007, while in the EU-10 it first shrank in the 1990s, but later increased again to 32.6 per cent. The reason for this U-shaped trend should be sought in the outsourcing of lower value-added industrial production to the new EU member countries. The demand for additional labour by these outsourced production facilities intensified following EU accession, not only contributing to significant labour market improvements in these countries, but even creating labour shortages filled by migrant workers from outside the EU.

In Turkey and the Ukraine, the share of total employment in agriculture is also declining, although large numbers of workers are still employed in the agricultural sector, often in low productive jobs. In contrast, in Morocco, the share is over 40 per cent and there has been no decline. While industry has raised its share of total employment in Turkey, and remained at the same level in Morocco in the 2000s, its proportion has declined sharply in the Ukraine. Employment in services has increased significantly in Turkey and the Ukraine, but stagnated in Morocco. Moreover, service jobs there are frequently low paid. The three countries also have a large informal economy. All of these factors encourage younger people to search for employment abroad and send remittances home to their families, if the conditions for migration so allow.

2.4 The financial crisis: Job shedding in sectors with large migrant employment levels

Migrant workers worldwide are particularly concentrated in construction, manufacturing, agriculture, hotels and catering, and health and care work, including

---

2 The transposition of EU Directive 2008/104/EC on temporary agency work and the ratification and application of the ILO Private Employment Agencies Convention, 1997 (No. 181), will contribute to improving decent work conditions for temporary agency workers.
Table 1 in the Annex contains data for a number of EU countries showing the employment in 2007 of foreign-born workers aged 15-64 in different sectors. In construction, the employment rates of foreign workers are especially high in southern European countries, which have recently experienced a boom in residential development. In Greece, 32 per cent of all construction workers are foreign born, while the figure in Spain is 21 per cent, in Portugal almost 15 per cent and in Italy close to 14 per cent. The housing boom that was fuelled in these countries by a combination of retired people from northern Europe seeking to spend time in warmer climates, cheap credits and lower airline prices, has come to a halt, as has the boom in Ireland. Migrant labour has played a key role in the periods of expansion in these countries and now migrants are the first to suffer.

Foreign worker employment in the manufacture of durable goods is considerable in countries such as the Czech Republic (23.3 per cent), Germany (19.9 per cent) and Italy (13.4 per cent), which also happen to have an important automobile industry, which has been particularly affected by the financial crisis. A number of German car manufacturers announced temporary stops in production due to slumps in sales or resorted to short-time work, and the French car industry also witnessed a significant decrease in employment in 2008.

The Nordic countries, among others, employ many migrants in health and social work (Norway 21.6 per cent, Denmark 19.5 per cent and Sweden 19.3 per cent), and data on labour shedding in these sectors have not been revealed. This is not surprising, as health care requires specialized knowledge and labour shortages are common.

In the EU, the impact on migrants is also more visible in countries where the crisis began earlier, such as Spain, Ireland and the United Kingdom. In Spain, the unemployment rate of migrants reached 17 per cent and the gap with the rate for native-born persons increased by 6.5 per cent in the third quarter of 2008 (OECD, 2009, p. 7).

3. Skills trends and shortages in Europe and in the selected sending countries

3.1 Skill and labour shortages in the European Union

There have been significant employment shifts by occupation in both the EU-15 and the EU-10. According to the Labour Force Survey, employment growth between 1996 and 2006 was particularly significant in skill-intensive occupations: technicians and professionals, legislators, senior officials and managers, but also in elementary occupations. For the contrary, employment fell in manual skilled occupations of craft

---


4 According to the International Standard Classification of Occupations (ISCO-88, ILO), elementary occupations cover mostly simple and routine tasks with only limited personal initiative/responsibility requiring the knowledge and experience at the first ISCO skill level (primary education).
workers, agricultural and fishery workers, as well as clerks (Strietska-Illina, 2008). A recent pan-European medium-term forecast of occupational skills demand in Europe suggests that this trend will continue. In its low scenario, which is the most plausible given the current economic downturn, a net increase of 8 million jobs in the period between 2006 and 2015 is projected. Most of these new job openings are forecast in services, easily off-setting the loss of 2.3 million jobs in the primary sector and 1.25 million in manufacturing and construction (Cedefop, 2008). Demand for labour in high-skilled non-manual occupations, such as technicians, professionals and managers, and also in elementary occupations, will increase further. This phenomenon is known as job polarization and has been evolving in Europe since the early 1990s as a result of technological changes, as well as the off-shoring of manufacturing.

However, it is important to note that, due to the ageing of the EU labour force, even where labour demand will not expand, a significant number of job openings are still expected due to the need to replace those withdrawing from the labour market – mostly retiring (see Figure 1). This suggests that Europe may experience labour shortages in a wide spectrum of occupations, with a stronger emphasis on high and low-skill service jobs.

**Figure 1. Demand by broad occupational group in the EU-25, Norway and Switzerland, 2006-2015 (change in millions of jobs): Low scenario**

![Bar chart](image)

Source: Calculated from Cedefop 2008 based on the low scenario of expansion demand.

Note: Data for Bulgaria and Romania not available.

---

5 Update of Strietska-Illina, 2008 report.
6 The forecast includes all EU Member States, except Bulgaria and Romania, and additionally includes Norway and Switzerland.
7 There is a large body of literature on job polarization (see Goos and Manning, 2003 and Goos, Manning and Salomons, 2003). See also the discussion on the changing meaning of skills in Strietska-Illina, 2008, op.cit). The factors mainly contributing to job polarization are still under discussion.
Analysis of the skills composition of employment also shows a clear trend towards upskilling, as the share of secondary and tertiary educated workers has increased significantly in all occupational groups, including elementary occupations. The trend may signify the substitution of qualifications as a result of skills mismatches, as well as the rising educational attainment levels of the European workforce, which are pushing skills levels on the labour market upwards.

However, the question arises as to whether available skills are being utilized optimally when nearly half of elementary jobs in the EU are currently occupied by medium and high-skilled personnel? Migrant workers contribute to this situation, occupying a relatively important share of employment in elementary occupations, where their skills are often under-valued. Research shows that workers who migrate within the EU, mostly those from new EU Member States working in the EU-15, demonstrate comparable skill levels to those of the domestic workforce, but are employed disproportionately in low-skilled jobs in hotels and restaurants and private households (Ward, 2008). However, the situation of migrant workers from non-EU countries is worse, as 13 per cent of men and 17 per cent of women with university degrees are employed in elementary occupations, compared to about 1 per cent for EU nationals (ibid., p.39). While employing individuals with qualifications above the level that is formally required may make a positive contribution to productivity, where there are significant skills mismatches it may lead to de-skilling and underperformance by such workers, and a huge waste of human capital for society. It also negatively affects social cohesion and social justice.

EU Member States have already experienced skills and labour shortages for some years (EEO, 2001), with a negative impact on the productivity and profitability of enterprises, a widening of wage differentials and a loss of competitiveness for their economies. Despite differences in economic structure, there are striking similarities in the occupations experiencing shortages between the EU-15 and the EU-10. New EU Member countries are suffering shortages due to the migration of workers with the requisite occupational skills from the EU-10 to the EU-15. It is therefore important to recognize, that although the single market would benefit from enhanced labour mobility within the EU, the situation with regard to skill shortages cannot be fully solved without the contribution of non-EU nationals.

Occupations in which there are shortages in Europe include skilled manual trades (carpenters, bricklayers, electricians, etc.), healthcare occupations (doctors, nurses, care for old/disabled people), child minders, IT specialists, managers, accounting and finance staff, scientists, engineers, restaurant and hotel staff, and selected low-skilled manual jobs (Strietska-Iлина, 2008). Companies also lack core skills, such as ICT skills, foreign languages, teamwork, interpersonal communication, initiative, creativity, entrepreneurship, leadership and management, presentation skills, ability to learn, etc.

Since EU Member States report shortages in similar occupations, it is important to recognize the skill/labour shortage as a European-wide problem requiring European-level policy measures (Strietska-Iлина, 2008). Such measures include efficient job-skill

---

8 One of first systematic records at European level was collected by the European Employment Observatory in 2001.
9 See also Manpower talent shortage survey, 2008.
matching, investment in the right skills for the labour market specifically targeting increases in labour productivity, measures aimed at increasing labour force participation, especially among women and older workers and, last but not the least, regulated migration. However, it is important to emphasize that, in the case of long-term and persistent specific occupational shortages, such as doctors, nurses, teachers, engineers and some skilled manual trades, Europe needs to invest in appropriate education and training of its own workforce, rather than relying on incoming migrant workers.

3.2 The current economic crisis and skills demand

Despite the current economic downturn and rising joblessness rates throughout the EU, the high long-term replacement demand for workers and the shrinkage of the European labour force do not suggest that Europe will be able to fill its needs from its own labour pool, even if mobility within the EU increases significantly. Of course, the current sharp rise in unemployment during the economic crisis does not encourage decision-makers to address the pending issue of labour shortages in the EU over the longer term. The evidence from previous economic crises suggests that increased unemployment may push a number of people into long-term unemployment and labour market withdrawal, and may therefore negatively affect overall participation rates in European labour markets in the longer term. This could further aggravate the situation of labour shortages in the EU. Some of the return programmes implemented by EU governments targeted at migrant workers are therefore short-sighted, as they could discourage potential migrants from seeking work in Europe in future (see more on this issue in section 5 below).

Sooner or later the downturn will come to an end. When labour demand is revitalized, the composition of jobs will change. The boom industries of recent years, such as finance and construction, may never bounce back to pre-crisis growth levels. Car manufacturing, steel production and other industries that are experiencing temporary plant closures may eventually face permanent job losses. At the same time, investment in job creation through current stimulus packages will cause a rise in public employment, jobs in infrastructure and carbon-neutral building, retrofitting, renewable energies and energy efficiency. The labour markets will therefore require different skill profiles from job applicants, including migrant workers. The current crisis will push economic restructuring, especially green restructuring, and may therefore have a lasting structural effect on skills demand.

3.3 Morocco

Over the past ten years, the structure of employment by broad occupational groups has been fairly stagnant in Morocco. Strong population growth and large youth cohorts have resulted in a surplus of labour. The literacy rate in Morocco remains low (52.3 per cent, according to the 2004 population census), and the share of the economically active population with at least upper secondary level education is rather low (18 per cent, according to the 2006 labour force survey). Despite recent progress in enrolment at upper secondary level, technical and vocational education and training

---

10 According to the European Competitiveness Report 2008, the EU shows very promising productivity growth. However, in real terms, the EU still lags behind the United States, where productivity per person employed is about 42 per cent higher.
(TVET) only accounts for 12 per cent of total enrolments at this level (UNESCO, online database, 2005). The system suffers from a disparity between general and vocational education, with weak links and a high level of segmentation. The high unemployment rate among the population with secondary and higher education co-exists with shortages of skilled labour at the level of technicians, especially in relation to modern technologies (ETF, 2008a).

Education and training in Morocco thus faces the major challenges of ensuring that the provision of skills is matched to the demand in the economy and by enterprises, promoting the employability of young people and improving the quality of education and training provision. Although Morocco possesses a large labour pool which could potentially contribute to both national and oversees economic development, the quality of its human capital remains low. The country needs assistance in continuing to improve the quality of education and in boosting access to and the provision of training that is responsive to labour market needs.

3.4 Turkey

Turkey has undergone immense changes in the sectoral structure of employment over recent decades, which is reflected in significant shifts in the employment structure by broad occupational category: the largest drop in employment according to labour market survey data, has been among skilled agricultural, craft and related trade workers, while the most stable and significant growth of jobs has been in elementary occupations.

The level of human capital in Turkey remains fairly low, as the majority of the Turkish population only have basic or lower education, and the share of the adult population aged 25-64 that has completed at least upper secondary education is only 35 per cent, compared to 70 per cent in the EU-27 (labour force survey, 2007). Nevertheless, it is important to note that younger cohorts enjoy much stronger enrolment rates at both the secondary and tertiary levels of education, a trend that promises a favourable change in the structure of the population by education level. Almost 40 per cent of those who enrol in secondary schooling (both upper and lower levels) go to TVET, although its status remains low.

Due to mismatches between the structure of the education provided and the demand for skills, higher levels of education do not reduce the risk of unemployment: the rate of unemployment among the population with upper secondary education is higher than the national average (13 per cent), while that of the population with tertiary education is around the average (9.6 per cent – data are for 2007). The lowest unemployment rate (5 per cent) is for the population with less than one year of schooling, which still numbers over 1 million in Turkey. Youth employability remains a major challenge, with youth unemployment rates greatly exceeding the average unemployment rate. The underutilization of the educated workforce at the national level, and the related outflow of young skilled labour abroad, may however have lasting negative effects on productivity, growth and competitiveness in the longer term.
3.5 Ukraine

In the Ukraine, changes in employment structure by broad occupational category shows trends that are similar to the EU: the growth of service, shop and market sales jobs, as well as legislators, senior managers and professionals. The demand for employment is also stable in the elementary occupations. This is happening at the expense of agricultural and other skilled manual jobs. The only significant difference compared to the trends in the EU is the decline in jobs for technicians and associate professionals, which is the group with the largest growth in the EU.

The Ukraine inherited from the Soviet Union a well-organized education system which laid a solid basis for the development of human capital (ETF, 2008b). And despite the many challenges posed by the transition process, participation in training and literacy rates remain high in comparison with international levels (ibid). In overall terms, the Ukrainian labour force possesses a high level of skills: 88 per cent of the economically active population achieved at least upper secondary education in 2005 (labour force survey). The Ukraine also has one of the highest gross enrolment rates in higher education (30 per cent) in Europe. However, the quality of education and its relevance to labour market needs remain a major challenge for the reform process. As a consequence of the ageing of the labour force and large labour migration outflows, the Ukraine has recently experienced significant labour and skills shortages, as well as skill mismatches in the labour market.

Economic conditions, especially the huge wage gap, are among the main incentives for migration. The migration of Ukrainian nationals has been increasingly intensive both to and from neighbouring regions to the East, as well as to the EU. This trend is likely to persist: according to a recent survey on migration intentions, 26 per cent of respondents indicated the intention to move abroad for work (2007).\textsuperscript{11} Despite the high potential of Ukrainian human capital to contribute to the economy of destination countries, the skills of Ukrainian migrants are highly underutilized, with 35 per cent of highly educated returning migrants indicating that they had found jobs abroad as low-skilled workers. The figure was even worse for those returning from the EU, where 48 per cent of medium and 40 per cent of highly qualified workers were employed in low-skilled jobs (ETF, 2008c). In the Ukrainian context of skill and labour shortages, this situation leads not only to a brain drain, but also a wastage of skills from the perspective of EU skill needs.

4. Current labour mobility trends

4.1. Labour mobility within the European Union

In 2005, the European Labour Force Survey (LFS) found that the EU-25 had a stock of 9 per cent of foreign nationals as part of its active working age population. Figures for the EU-15 were slightly higher, with 10.4 per cent or 19 million. Of those 19 million, fewer than 20 per cent came from other EU Member States (3.3 million) and over 80 per cent were migrants who were third country nationals. Of the 3.3 million

\textsuperscript{11}Ibid.
internal EU migrants, 0.6 million originated in one of the EU-10 countries and 2.7 million came from the EU-15 countries.

However, there are important differences among the EU-27, for example in the share of foreign nationals of active working age relative to the total working age population. In 2006, this share reached almost 46 per cent in Luxembourg and 19 per cent in Cyprus, while in Poland and the Czech Republic the shares were only between 0.5 and 2 per cent.

It may also be noted that certain groups of workers have a significantly lower level of mobility than average, including people with lower educational attainment and older employees. In addition, when they are unemployed, people are reluctant to move unless they have to, because social networks take on greater importance for support in times of unemployment.

This illustrates the trade-offs between the economic and social aspects of geographical mobility. Economic opportunities and desired life-style changes are counterbalanced by the fear of losing support from family and friends, and the challenges of learning a new language and finding suitable housing. The results of a joint research project by the DG Employment, Social Affairs and Equal Opportunities of the European Commission and the European Foundation for the Improvement of Living and Working Conditions published in 2006 also show that people consider problems relating to access to social security benefits and public services to be less of an obstacle to mobility than administrative and legal barriers (Krieger, forthcoming).

4.2. Outward labour mobility trends – Morocco

Morocco is one of the world's main emigration countries. Its current population is about 30 million, and there are over 2 million people of Moroccan descent living in Western Europe. More recently, a growing number of Moroccan migrants have also settled in Canada and the United States. Moreover, Morocco is evolving into a transit and immigration country for migrants from sub-Saharan Africa. The largest legally resident population of people of Moroccan descent (over 1,025,000) is in France, followed by Spain (397,000).

Following the stoppage of European guest worker recruitment in the early 1970s, Moroccan migration was characterized by family reunification, as well as irregular flows into the EU, and particularly to Italy and Spain, which introduced visa requirements in 1990 and 1991, respectively. Until then, Moroccans had been able to enter as tourists and overstay their visas. The Italian and Spanish Governments embarked on several regularization campaigns to grant legal status to migrants, including Moroccans. Italy, and especially Spain, have replaced France as the primary destinations for new Moroccan migrant workers, of whom an increasing number are women working in private households or in agriculture and small industry.

Morocco has a high level of bilateral cooperation with a number of EU Member States, and particularly Spain, much of which was initially related to security issues, border control, etc., and Morocco’s role as a transit country for migrants from sub-Saharan Africa. Bilateral cooperation then shifted to, among other matters, economic issues, such as agreements on temporary seasonal workers. The EU is seeking to
support Morocco's economic development, for example through the MEDA (Méasures d’Accompagnement) programme to boost the private sector and promote good governance as part of the European Mediterranean Association Agreement signed in 1996. More recently, MEDA II (institutional support to the circulation of persons) has been introduced. Significant funds from the MEDA programme are set aside to control irregular migration and foster rural development. The funds are targeted in particular at Morocco’s northern provinces, which are seen as a source of poverty, drugs, human smuggling and irregular migration. However, MEDA funds only amount to about 2 per cent of Moroccan remittances and, from the Moroccan perspective, migration constitutes an important development resource that alleviates poverty and unemployment and increases political stability.

Emigration is likely to continue at considerable levels in the near future. However, it could decline in the longer term when there will be a substantial fall in the number of people reaching working age in the decades after 2010. Morocco would then be characterized by the coexistence of emigration, transit migration and immigration, a process that has already started with migrants from sub-Saharan countries transiting, but also staying in the country (de Haas, 2005).

4.3. Outward labour mobility trends - Turkey

Turkey does not report official emigration figures of permanent outflows. However, contract-dependent temporary labour migration through the Turkish Employment Office reached 81,000 persons in 2006, which represents a 35 per cent increase compared with 2005. The main destinations are the Middle East (especially Saudi Arabia) and the Commonwealth of Independent States. Temporary migration from Turkey to other OECD countries has been unimportant in recent years and is in constant decline. 12

For EU countries, labour migration from Turkey is therefore largely a phenomenon of the past. In countries such as France, Germany and the Netherlands, which have large populations of Turkish ethnic origin (including Turkish nationals living in these countries as second and third generation foreign workers), family reunion policies continue to play a role, as do integration policies through the labour market and the educational system. A study that came out in Germany in January 2009 shows, for instance, that of the 2.8 million people of Turkish ethnic origin in Germany, 30 per cent have no school diploma, compared with only 1 per cent of those of German ethnic origin.

4.4. Outward labour mobility trends - Ukraine 13

Ukrainians have been emigrating in large numbers in the recent past. At its independence in 1991, the country had almost 50 million residents, but has lost about 10 per cent of its population since then. While most of those who emigrated before the Ukraine became an independent State were ethnic Germans and Jews, since

---

12 For more details, and also information on immigration, transit migration and related issues, see the Turkey country profile, OECD, 2008, pp. 284-285.
13 This section is based on information obtained in September 2007 at seminars on migration and development on the Polish-Ukrainian border held at the Przemysl Institute for Sociology and the Ukrainian National Institute for Strategic Studies, Lviv Branch.
independence most emigrants have been ethnic Russians and Ukrainians moving to the United States, Israel, the Russian Federation and the EU.

There has also been a large volume of short-term labour migration to the Czech Republic, Italy, Poland, Portugal, Russian Federation, Spain and United Kingdom. Throughout much of the 1990s, the Ukraine regarded Poland and the Czech Republic as economic, political and social role models, and their liberal policies on entry, stay and work attracted Ukrainian migrants, especially from western Ukraine. Ukrainians sought seasonal jobs in Polish and Czech agriculture, construction and domestic services. Migration to southern European countries started through temporary foreign workers programmes, especially in construction and agriculture. For example, by 2006, largely as a result of the construction boom in Portugal and Spain in the late 1990s, and the recession in the Ukraine, Ukrainians constituted the second largest group of foreigners in Portugal after Brazilians. The largest number of Ukrainian workers abroad, about one million, were in the Russian Federation.

The Ukraine is now one of the countries that has been hit the hardest by the economic crisis. When combined with the political uncertainty arising from tensions between those who would like to see closer ties with the Russian Federation and those favouring closer relations with the EU, this could contribute to turning current short-term migration into permanent migration, particularly as recent studies have found that young people tend not to retain their ties with the Ukraine.

5. Discussion of selected mobility strategies and policy responses

5.1. Intra-EU mobility: Coherence of policy objectives

Labour mobility is clearly an important issue in the European Employment Strategy, as illustrated by the fact that 2006 was designated as the European Year of Workers’ Mobility. The policy objective seems to be to achieve mobility. However, the question arises as to whether the relatively higher internationalization of the European labour market (in the form of the presence of third country nationals) is indicative of sub-optimal levels of intra-EU mobility (on average, only 20 per cent of migrant workers are from other EU countries, while 80 per cent are third country nationals: see under point 4.1.). Nevertheless, each time there is a new round of EU accessions, the “more mobility” objective seems to be forgotten and too much mobility is feared.

Regional/structural development policies and programmes constitute a clear challenge to labour mobility policies at the level of the EU. These programmes seek to improve economic and social conditions in under-developed regions and countries, and to support the retention of human resources in these areas. Permanent large-scale migration of the better educated and younger segments of the workforce would undermine such policies.

---

14 A distinction needs to be made between intra-EU mobility and EU policies in relation to third country nationals (TCNs). With regard to the latter, facilities are usually offered to high-skilled workers, while stringent conditions are set for the entry of low-skilled workers. Some EU Member States have lists of low-skilled occupations open for nationals of other EU Member States, while TCNs only have access to high-skilled occupations.
Research consistently shows that students, the highly educated and highly qualified workers are more likely to cross borders within the EU. Obviously, this may constitute a risk of a combined brain and youth drain for some regions/countries. The extent of this risk depends on two factors: whether the migration is of a permanent nature or results in substantial circular or return migration; and whether this reflects an age effect for a certain life phase, or a cohort effect, with an increased propensity for the migration of younger cohorts over the whole of their working life. Both large-scale permanent migration and a cohort effect have the potential to drastically change population distributions in the long term (Krieger, forthcoming).

5.2. Competition for global talent and brain drain

The risk of the brain drain does not only apply to intra-EU mobility. Initiatives designed to raise EU competitiveness (and also that of individual member countries) by increasing the available human capital have the potential to harm the countries of origin of migrants by depriving them of essential skills.

Accordingly, regulations under which foreign students are granted the right to stay in EU countries for extended periods after graduation to try to find employment can have one of the following two effects. On the one hand, they can be seen as enabling graduates from developing countries to gain useful work experience and therefore benefitting their country of origin. On the other hand, there are reasons to believe that in general people who undertake their studies in a foreign country and then stay on will be less inclined to return to their country of origin than others. One of the reasons for this is that study years are an important phase of life for building friendships and relations, and for some people these are also the years for starting families (Kuptsch, 2006).

Similarly, the “bluecard initiative” has the objective of increasing the flow of highly skilled workers to the EU. European Commission President José Manuel Barroso said: “With the European blue card, we send a clear signal. Highly skilled workers are welcome in the EU”. The EU’s bluecard programme would allow non-EU professionals to enter the EU with their families if they are offered jobs lasting at least one year, with “professional” being defined by education and/or salary (the recommended minimum salary is at least three times the national minimum wage). After two years in one Member State, bluecard holders could move to another EU country if they have a job offer in that country.

As with the intra-EU migration of highly qualified individuals, the outcomes for migrant sending regions or countries will depend on whether the persons concerned eventually return, or whether they at least keep ties with their country of origin.\(^{16}\)

---

\(^{15}\) The United Kingdom, Germany and France, as the largest recipients of foreign students in the EU, have all introduced such regulations in recent years with a view to attracting more foreign students and increasing national competitiveness.

\(^{16}\) There are many other factors that influence outcomes, which cannot all be discussed here, such as the nature of substitution or complementarity among skilled labour, low-skilled labour and capital in the migrant sending country/region. For a differentiated discussion of brain drain vs. brain gain see Lucas (2005 and 2009 forthcoming).
5.3. From brain drain to brain gain: a win-win solution?

The recognition of the skills, competences and qualifications of migrant workers in the EU is a problematic issue. Virtually regardless of the educational attainment and skills of migrants, they tend to end up in jobs that are well below their educational level. The improved portability of skills could therefore help to minimize the negative effects of skills migration, that is the brain drain, and especially brain waste. The portability of skills, supported by national or international qualification frameworks, helps migrant workers to obtain employment that is appropriate to their skills level. Regional qualification frameworks and cooperation for the mutual recognition of qualifications create favourable conditions for labour mobility and the portability of skills (ILO, 2008, p. 16).

According to the Human Resource Development Recommendation, 2004 (ILO, No. 195), the portability of skills is defined in two dimensions:
- employable skills that can be used productively in different jobs, occupations and industries; and
- the certification and recognition of skills within national and international labour markets.

The countries of the European Neighbourhood Policy and the Mediterranean region are pursuing the development of national qualification frameworks with the longer-term objective of making their national and regional frameworks compatible and linked to the European Qualifications Framework, European Credit Transfer System and Europass. While full implementation of such systems is very difficult and it may take years to design, codify and implement them, partial recognition of qualifications is possible. This could be implemented through agreements for the reciprocal recognition of the certifications and competences of migrant workers between sending and receiving countries (ILO, 2007). This approach could be particularly useful in sectors and occupations where migration is high and the demand for workers is stable.

An efficient system for the recognition of skills and qualifications needs to be based on skills and competence standards that are closely linked to occupational requirements on the labour market. EU countries could reap the benefits of a better qualified migrant workforce by investing in the development of systems in sending countries to anticipate and identify skills and competence requirements and the transfer of their findings into curriculum development. The same applies to investment in the provision of skills. The EU itself could benefit from improving the access of migrant workers to training. Apart from encouraging enterprises to invest in the training of migrants, governments could also develop active labour market policy measures and provide targeted funding for the training of migrants in occupations and skills for which there is the greatest demand.

Countries such as Morocco and Turkey are trapped in the low skill, low wage, low productivity equilibrium. Continuing to send out their most productive, youngest and best educated workforce will only perpetuate the situation. To break the vicious circle, countries will need to attract smart investment to improve both the supply of and the

---

17 ETF research of 2006 and 2007 into the links between migration, education and work in Albania, Egypt, Republic of Moldova and Tunisia.
demand for skills. Investments in new technologies and high value-added jobs, accompanied by efficient human resource development measures and improvements in the quality of work, social dialogue and social protection will promote employability, reduce poverty and contribute to raising levels of productivity, growth and development. Exporting skills to the EU, in exchange for importing good jobs that are tied to skills investment in fields of training that are in demand in both sending and receiving countries, could offer an equitable solution to the brain drain problem.

5.4. Ensuring the effectiveness of temporary foreign worker programmes

The European Commission is examining closely the issue of how to ensure that circular migration programmes achieve their objectives, particularly through the inclusion from the outset in new temporary foreign worker programmes of components to encourage the return of migrants and to promote the development of their countries of origin.

Past experience of guest worker programmes (in both Europe and the United States) has shown that the objective of rotating foreign workers in and out of labour markets is not sufficient in itself to ensure that migration remains temporary and to achieve development objectives in the countries of origin. Guest worker programmes tend to become larger than originally planned and to last longer than anticipated because of distortion and dependence. Distortion refers to assumptions by employers that labour markets are flexible, so that jobs can be structured in a manner that assumes the presence or absence of migrants. However, once businesses begin to make investment decisions that assume the continued availability of migrants, employers resist policy changes intended to curb the influx of foreign workers: their assumptions about labour supply are therefore distorted because they assume they can reach over borders for additional workers. Dependence refers to the fact that migrants, as well as their families, communities and home country governments, often depend on earnings from foreign jobs, with the result that they also resist policy changes that might reduce emigration opportunities. This is the reason why irregular migration often follows the cessation of recruitment of legal migrant workers (Martin, Abella, Kuptsch, 2006).

Experience has given rise to the dictum “nothing is more permanent than temporary migration”, which explains the initial and to some extent lingering reticence by countries such as Austria and Germany concerning the concept of “circular migration”. Yet, the wording used is already indicative of a policy change with regard to the envisaged “new generation” of temporary foreign worker programmes. People were “rotated” in and out of labour markets under the guest worker schemes: the decisions were not theirs. In contrast, people “circulate” under the new schemes: they are the agents.

The agency of migrants, and giving them a voice, is important from the ILO’s perspective. In this respect, it might make sense to aim for quality rather than quantity when launching circular migration programmes. The careful selection of migrants with a potential to bring something back to their country of origin may have broader development effects than establishing large programmes that only focus on the financial gains for migrants, their families and communities. A catch phrase here could be to target “social remittances vs. financial remittances”. The pre-departure
training that is envisaged under a number of “circular schemes” could also be used to incite prospective migrants to think, before they leave, about activities in which they might be engaged upon their return. With a concrete objective in mind, people tend to have a different learning experience, and are more likely to pay attention to activities and events in the host country (at their workplace, and elsewhere) that they might not have noticed otherwise.

The provision of on-the-job training during the temporary stay would of course be desirable from the viewpoint of the migrants themselves, as well as that of their countries of origin. Training of this type would have the potential to help migrant workers be economically successful upon their return, either by increasing their employability or improving their prospects for successful self-employment. Reference maybe made in this respect to skills upgrading in their particular area of work, as well as in such areas as the enhancement of managerial skills and innovative production techniques.

In addition, it would be helpful if the EU used these new circular schemes to strengthen capacities in partner countries, for example by the establishment of training centres (where pre-departure training, among others, can be undertaken), or the development of common training facilities.

In connection with temporary migration and training, the EU may also wish to evaluate the trainee schemes that many Member States have established under MoUs or bilateral agreements between themselves and with third countries. These schemes usually have built-in mechanisms to ensure that training is actually provided (such as the requirement for participating enterprises to employ three or four permanent professional staff per trainee), and are therefore sometimes regarded as a best practice. It is perhaps worth identifying why they have such a low take-up rate (for example, in 2008, only 160 trainees went from Morocco to France, while the agreed annual quota was 300).

5.5. Circularity and return in times of crisis

The economic and financial crisis has led to a rise in protectionist attitudes, which will also have an incidence on how populations perceive migrants. This climate is probably not conducive to starting new migration streams, and consideration might be given to concluding circular migration agreements mainly with countries whose nationals are already present in the EU. This would convey the message that migrants are welcome to come and go, and are not perceived as new competition for scarce resources. The requirement to protect migrants against xenophobic reactions could perhaps be met slightly more easily under these circumstances.

Voluntary return programmes in response to the crisis will have to be assessed in terms of the messages that they convey and whether it makes sense for migrants to return to their home countries when they have made an effort to integrate and their labour may be needed again soon.

In response to increases in the numbers of migrants applying for social benefits, Spain has introduced a voluntary return programme for unemployed legally resident migrants (from 20 non-EU countries that have social security agreements with Spain).
It is hoped that some 87,000 persons will return to their countries of origin under this programme (The Economist, 2009), in accordance with which unemployed migrant workers who are registered with the public employment service undertake not to return to Spain for three years. The payment is made in two lump sums, the first in Spain (40 per cent) and the second in the country of origin (60 per cent). So far few migrants have shown an interest in the programme (The Economist, 2009).

Similarly, the Czech Republic has established a voluntary return programme for which applicants have to be legal non-EU residents holding a valid residence permit. Some analysts claim that while the economic crisis was one of the reasons for limiting the presence of foreign workers in the Czech Republic, irregular migration, especially from Viet Nam and Mongolia, had already started to undermine foreign worker admissions before the crisis. Measures to combat the factors that lead to irregular migration, such as regulating unscrupulous labour intermediaries, would therefore make sense, especially since the Vietnamese appear to have integrated well into Czech society, as they have learned the language and occupy posts shunned by locals, or are self-employed (Plewa, 2009).

5.6. The role of the social partners and tripartite consultations

The social partners can play an important role in ensuring that labour mobility is safer, more regular and more rights based for migrants, and in helping to ensure that it is beneficial for both migrant sending and receiving countries.

Trade unions today work across borders to protect migrant workers. For example, they may be involved in recruitment processes in temporary foreign worker schemes. Or they may devise mechanisms whereby membership of a trade union in the country of origin gives automatic membership of a counterpart union in the country of destination. For instance, the global union federation Union Network International (UNI), which organizes craft and services workers, launched a passport scheme in 2000. The UNI passport allows a unionized migrant to be ‘hosted’ by a UNI affiliated union in the destination country. The passport brings a considerable list of benefits: from information on working conditions, the banking system, tax regulations, opportunities to participate in local union activities and training courses, to advice on labour issues and legal support (Schmidt, 2006).

Bilateral cooperation between German and Polish trade unions in the construction sector has led to the foundation of a European migrants union. In 2004, the German union IG BAU founded the European Migrant Workers Union (EMWU) to organize migrant workers of all nationalities who work for a limited period of time in one or several Member States of the European Union (other than their own), especially in the construction and agricultural sectors. The EMWU was a response to abuses, such as the payment of wages far below the levels set out in collective agreements and employment without social protection coverage, particularly of Polish workers on construction sites in the Potsdamer Platz in Berlin, Europe’s biggest building area in the 1990s (Schmidt, 2006).

---

18 Migrant workers are supposed to return with other family members who do not have an independent residence permit and who have used the family reunion policy to come to Spain and obtain a residence permit.
19 For details, please refer to [http://www.planderetornovoluntario.es/index_uno.html](http://www.planderetornovoluntario.es/index_uno.html).
Cross-border cooperation could also be developed between enterprises, for example between returning entrepreneurs and their former employers when they have already developed a relationship of trust. The cultural knowledge of migrants that enables them to work in both countries makes them strategic players in globalized markets. Their personal characteristics and qualities can play a role in building the reputation of their home country, thereby helping to counter the “newcomer effect” on international markets (see, for example, Charest, 2007).

Bipartite social dialogue and tripartite consultations can also be effective in improving the framework of legal measures and collective agreements, with a view to promoting decent work for mobile, migrant and local workers. The social partners and governments should be encouraged to work together to ensure that the interests, rights and voice of mobile and migrant workers are taken up in social dialogue structures at all levels.

6. Suggested points for discussion

Participants may wish to focus on the following questions in the discussions:

- Is reduced labour mobility, especially across borders, a necessity or a sensible response to dealing with the current economic crisis? What are the short vs. long-term considerations in this respect?
- How can policy coherence be strengthened in both migrant sending and receiving countries in relation to mobility/migration vs. structural/regional economic development policies? And how is human/skills development linked to these policies? A related issue is how migration can contribute to meeting labour demand in the EU, without jeopardizing the development of countries of origin and the attainment of the Millennium Development Goals in those countries?
- How can sound management of labour migration and mobility contribute to promoting decent work for all in both sending and receiving countries?
- What can be done to mitigate the negative effects of the underutilization of migrant workers’ skills?

Suggested additional questions for discussion (these questions can also be merged with the existing ones).

- How can the integration of migrant workers be facilitated in workplaces and societies of destination?
- How are labour shortages in the EU to be addressed and what are the respective contributions likely to be of higher productivity, higher labour force participation rates and migration?
References


UNESCO on-line database, 2005


Annex Table 1: Employment of foreign born workers, aged 15-64, by sector, 2007

<table>
<thead>
<tr>
<th>Sector</th>
<th>AT</th>
<th>BEL</th>
<th>CZ</th>
<th>DE</th>
<th>DK</th>
<th>ES</th>
<th>FR</th>
<th>GR</th>
<th>HUN</th>
<th>IT</th>
<th>LUX</th>
<th>NL</th>
<th>PORT</th>
<th>SWE</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting, forestry and fishing</td>
<td>1.3</td>
<td>1.2</td>
<td>3.6</td>
<td>1.1</td>
<td>..</td>
<td>4.5</td>
<td>1.1</td>
<td>4.8</td>
<td>..</td>
<td>3.4</td>
<td>0.7</td>
<td>1.4</td>
<td>..</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Mining &amp; quarrying</td>
<td>..</td>
<td>..</td>
<td>1.3</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Manufacturing non-durable food products</td>
<td>3.0</td>
<td>2.2</td>
<td>2.8</td>
<td>3.7</td>
<td>3.9</td>
<td>2.4</td>
<td>2.3</td>
<td>3.0</td>
<td>..</td>
<td>1.9</td>
<td>0.9</td>
<td>3.0</td>
<td>..</td>
<td>0.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Manufacturing non-durable other products</td>
<td>6.2</td>
<td>4.8</td>
<td>8.1</td>
<td>6.7</td>
<td>4.0</td>
<td>3.7</td>
<td>3.8</td>
<td>5.3</td>
<td>8.9</td>
<td>7.3</td>
<td>2.0</td>
<td>4.7</td>
<td>4.9</td>
<td>4.1</td>
<td>3.9</td>
</tr>
<tr>
<td>Manufacturing durable</td>
<td>11.4</td>
<td>6.6</td>
<td>23.2</td>
<td>19.9</td>
<td>8.3</td>
<td>5.1</td>
<td>7.6</td>
<td>6.4</td>
<td>11.7</td>
<td>13.4</td>
<td>4.6</td>
<td>9.8</td>
<td>5.7</td>
<td>10.6</td>
<td>5.8</td>
</tr>
<tr>
<td>Electricity, gas &amp; water supply</td>
<td>..</td>
<td>0.6</td>
<td>..</td>
<td>0.3</td>
<td>..</td>
<td>0.1</td>
<td>0.3</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Construction</td>
<td>10.0</td>
<td>8.2</td>
<td>8.8</td>
<td>6.7</td>
<td>3.3</td>
<td>21.0</td>
<td>10.1</td>
<td>32.0</td>
<td>10.0</td>
<td>14.8</td>
<td>13.6</td>
<td>4.8</td>
<td>15.9</td>
<td>3.2</td>
<td>5.7</td>
</tr>
<tr>
<td>Wholesale and retail trade, repair</td>
<td>15.0</td>
<td>13.9</td>
<td>14.1</td>
<td>12.4</td>
<td>14.0</td>
<td>13.0</td>
<td>12.1</td>
<td>10.3</td>
<td>19.9</td>
<td>10.8</td>
<td>11.5</td>
<td>12.2</td>
<td>14.3</td>
<td>10.7</td>
<td>11.8</td>
</tr>
<tr>
<td>Hotels &amp; restaurants</td>
<td>12.0</td>
<td>8.0</td>
<td>6.1</td>
<td>8.4</td>
<td>7.8</td>
<td>14.7</td>
<td>6.9</td>
<td>10.2</td>
<td>3.6</td>
<td>8.1</td>
<td>6.1</td>
<td>6.8</td>
<td>8.3</td>
<td>7.8</td>
<td>8.6</td>
</tr>
<tr>
<td>Transport, storage, communication</td>
<td>6.3</td>
<td>6.7</td>
<td>4.6</td>
<td>5.4</td>
<td>7.7</td>
<td>4.5</td>
<td>6.3</td>
<td>2.4</td>
<td>4.6</td>
<td>4.6</td>
<td>3.9</td>
<td>6.9</td>
<td>5.0</td>
<td>7.0</td>
<td>7.8</td>
</tr>
<tr>
<td>Financial intermediation</td>
<td>1.4</td>
<td>2.1</td>
<td>1.4</td>
<td>1.5</td>
<td>1.7</td>
<td>1.0</td>
<td>2.2</td>
<td>..</td>
<td>..</td>
<td>0.7</td>
<td>12.7</td>
<td>2.7</td>
<td>1.8</td>
<td>1.1</td>
<td>4.9</td>
</tr>
<tr>
<td>Real estate</td>
<td>11.5</td>
<td>13.7</td>
<td>7.9</td>
<td>10.1</td>
<td>11.6</td>
<td>7.7</td>
<td>14.6</td>
<td>3.8</td>
<td>8.6</td>
<td>9.1</td>
<td>14.3</td>
<td>16.1</td>
<td>9.4</td>
<td>14.1</td>
<td>15.2</td>
</tr>
<tr>
<td>Real estate and renting</td>
<td>2.1</td>
<td>0.9</td>
<td>1.3</td>
<td>0.5</td>
<td>..</td>
<td>1.1</td>
<td>1.9</td>
<td>..</td>
<td>..</td>
<td>0.7</td>
<td>0.9</td>
<td>0.8</td>
<td>0.9</td>
<td>1.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Computer research and development, other business activities</td>
<td>4.4</td>
<td>12.8</td>
<td>4.8</td>
<td>5.2</td>
<td>10.8</td>
<td>3.0</td>
<td>7.3</td>
<td>1.9</td>
<td>7.6</td>
<td>4.8</td>
<td>10.3</td>
<td>10.8</td>
<td>4.7</td>
<td>9.8</td>
<td>13.9</td>
</tr>
<tr>
<td>Security activities and industrial cleaning</td>
<td>5.0</td>
<td>1.8</td>
<td>4.1</td>
<td>..</td>
<td>3.6</td>
<td>5.4</td>
<td>1.8</td>
<td>..</td>
<td>..</td>
<td>3.6</td>
<td>3.1</td>
<td>4.4</td>
<td>3.1</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Public administration &amp; extra-territorial organizations</td>
<td>3.4</td>
<td>10.9</td>
<td>2.7</td>
<td>2.5</td>
<td>3.4</td>
<td>1.2</td>
<td>7.0</td>
<td>1.3</td>
<td>..</td>
<td>1.5</td>
<td>12.6</td>
<td>6.0</td>
<td>6.5</td>
<td>4.2</td>
<td>5.0</td>
</tr>
<tr>
<td>Education</td>
<td>3.1</td>
<td>5.6</td>
<td>4.2</td>
<td>4.3</td>
<td>8.0</td>
<td>2.0</td>
<td>5.5</td>
<td>1.5</td>
<td>8.9</td>
<td>2.3</td>
<td>2.8</td>
<td>5.4</td>
<td>6.8</td>
<td>11.4</td>
<td>7.1</td>
</tr>
<tr>
<td>Health and social work</td>
<td>9.1</td>
<td>9.8</td>
<td>5.8</td>
<td>10.4</td>
<td>19.5</td>
<td>4.1</td>
<td>11.2</td>
<td>2.6</td>
<td>8.4</td>
<td>4.9</td>
<td>7.8</td>
<td>15.2</td>
<td>7.3</td>
<td>19.3</td>
<td>14.4</td>
</tr>
<tr>
<td>Other community</td>
<td>5.5</td>
<td>4.5</td>
<td>5.0</td>
<td>5.7</td>
<td>4.9</td>
<td>2.7</td>
<td>4.1</td>
<td>2.1</td>
<td>5.3</td>
<td>5.6</td>
<td>2.9</td>
<td>4.4</td>
<td>4.9</td>
<td>4.3</td>
<td>4.9</td>
</tr>
<tr>
<td>Private households</td>
<td>..</td>
<td>1.2</td>
<td>..</td>
<td>1.0</td>
<td>..</td>
<td>12.2</td>
<td>4.8</td>
<td>14.0</td>
<td>..</td>
<td>11.4</td>
<td>3.4</td>
<td>..</td>
<td>5.4</td>
<td>..</td>
<td>0.6</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>