EXECUTIVE SUMMARY

This *Transition Report* focuses on the transformation of work. With profound changes being observed in three different areas that can be thought of as the "who", the "how" and the "where" of work, this report explores the issues of demographic change (the "who"), the automation of jobs (the "how") and the migration of workers across and within national borders (the "where"), looking at how the interplay between demographic shifts, technology and migration can help to shape economic growth and the future of work, both across the EBRD regions and around the world.

Rapid demographic change is being observed throughout the EBRD regions. In emerging Europe, ageing populations and shrinking workforces mean that countries need to help their citizens to extend their working lives. Meanwhile, in the young economies of Turkey, Azerbaijan, Central Asia and the southern and eastern Mediterranean, the main challenge is to create a continuous stream of high-quality jobs for the many new entrants to the labour market.

At the same time, technological change is transforming demand for skills and the nature of jobs. Many economies in the EBRD regions have experienced deindustrialisation (a decline in industrial employment) and job polarisation (a decline in medium-skilled occupations as a percentage of total jobs). While technological change is boosting demand for skilled labour, many countries face significant shortcomings when it comes to the quality of technology-related skills, especially among older workers.

Cross-border migration is also on the rise, with greater numbers of migrants leaving countries of the EBRD regions and greater numbers arriving in, or passing through, those countries. The analysis in this report shows that people who intend to emigrate often have higher-than-average skills, and emigration by skilled workers can, in the short term, have a negative impact on the productivity of firms in migrants' countries of origin. In the longer term, however, increases in knowledge flows between migrants' countries of destination and origin can help to turn a "brain drain" into "brain gains".

Meanwhile, within countries, people are increasingly gravitating towards more densely populated areas. These areas are projected to achieve the largest increases in productivity and well-being by 2040, provided that congestion can be kept in check. In places that have experienced depopulation, policy interventions need to foster productivity growth and support investment in infrastructure.

The analysis in this report is based on comprehensive individual-level and country-level data on adult skills, the use of industrial robots across sectors and countries, the characteristics of refugees and migrants travelling to Europe and people's intentions to migrate. As in previous years, this report also provides an overview of progress in the area of structural reform.

THE YOUNG AND THE OLD

Demographic change can occur fast. As countries develop, falling birth rates and rising life expectancy deliver demographic dividends in the form of a larger workforce relative to the size of the total population, an increase in savings and enhanced human capital. However, ageing populations and below-replacement birth rates can quickly turn such demographic dividends into demographic headwinds.

Turkey, Azerbaijan and the economies of Central Asia and the southern and eastern Mediterranean are currently at a relatively early stage of that demographic transformation process. These young economies face the challenge of creating large numbers of jobs every year for their new entrants to the labour market – a challenge that is shared by many other developing economies and emerging markets around the world. Priorities in such economies include boosting the level of physical capital per worker, improving human capital and raising labour force participation rates among women. Improvements to the business climate and stronger macroeconomic policy frameworks can help these economies to leverage the pool of global savings in order to fund investment in machinery and in education systems that provide the skills needed by the private sector.

In contrast, the economies of emerging Europe find themselves wrestling with population ageing. Ageing in emerging markets – a relatively new phenomenon – is partly a reflection of strong economic development that has brought about higher levels of income and improvements in healthcare for large sections of the population. However, it also represents a major challenge in the sense that demographics are no longer contributing positively to economic growth or income convergence.

As in advanced economies – where higher rates of immigration, greater reliance on automation and longer working lives have so far succeeded in mitigating the economic impact of ageing – the future of employment and growth in emerging markets will be shaped by the interplay between trends in demographics, migration and automation, as well as the way in which education and social safety nets respond to those trends.

In emerging Europe, labour force participation rates among older age groups have remained relatively low. Pension reforms raising statutory retirement ages and modifying provisions for early retirement can encourage older people to seek employment and incentivise firms to hire older workers, as can changes to tax systems. At the same time, improvements in healthcare, working conditions and life-long learning opportunities are also needed in order to help older employees to remain productive and retain or upgrade their skills.

http://2018.tr-ebrd.com/theyoungandold

SKILLS, EMPLOYMENT AND AUTOMATION

Over the last decade, many economies in the EBRD regions have experienced deindustrialisation and increased job polarisation. The employment shares of agriculture and manufacturing have declined substantially, with service-sector workers now accounting for larger percentages of the labour force. Medium-skilled occupations have declined as a percentage of total jobs, while numbers of low-skilled and high-skilled jobs have risen.

Across the EBRD regions, significant increases have been observed in the average number of years of education. However, the quality of that education and the extent to which it meets the needs of the market have not always risen in parallel. As a result, ICT skills tend to lag behind those observed in advanced economies, particularly among older workers. Closing this gap will help the EBRD regions to leverage the benefits of future technological advances while minimising the disruptive impact that digitalisation can have on the labour market.

The impact of profound technological change can also be seen in the rapidly rising numbers of industrial robots in parts of the EBRD regions. As elsewhere, automation has both destroyed and created jobs. The net impact that robotisation has had on employment in central and south-eastern Europe has been negative, but very small (accounting for 0.2 percentage points of the labour force, or 13 per cent of the total decline in the employment rate between 2010 and 2016). That negative impact has been strongest among workers who are only educated to primary level.

In many countries where the EBRD invests, skills shortages have been exacerbated by the emigration of skilled workers. The analysis in this chapter shows that the total factor productivity of firms whose workers have had increased opportunities to emigrate following their countries' accession to the EU has, on average, been significantly lower than it would have been in the absence of emigration. However, this does not appear to hold for foreign-owned and innovative firms, as they have been able to adjust to the changing environment by increasing wages. Policies that support training and the upgrading of local skills, such as subsidies for training newly hired workers, can help firms to deal with increased employee turnover and minimise the adverse effects of emigration.

In the longer term, innovative firms in migrants' countries of origin benefit from greater inflows of knowledge on the back of earlier emigration. Over time, those larger "knowledge remittances" are expected to help new EU member states to narrow the gap in relation to more advanced European economies in terms of the quantity and quality of patenting activity.

http://2018.tr-ebrd.com/labourmarkets

INTERNATIONAL MIGRATION

International migration is on the rise, both globally and in the EBRD regions. Indeed, emigration rates in the EBRD regions have risen since 1990, with almost 10 per cent of people born there now living outside their country of birth or citizenship.

The emigration of workers is a concern for many countries where the EBRD invests. The analysis in this chapter shows that people who express an intention to emigrate tend to be single, male and young and live in urban areas. They also tend to be better educated than the average person and are often less satisfied with the quality of local amenities (such as healthcare, education, air and water, housing and transport) than people who do not intend to emigrate. Satisfaction with the local education system appears to be of particular importance for the young and the highly educated when it comes to deciding whether to move abroad.

These findings suggest that improving the business environment and the quality of public services and other local amenities may significantly reduce people's desire to emigrate. Indeed, improving the quality of public goods can have a large impact on intentions to emigrate, comparable to the effect of raising wages by more than US$ 500 a month in a country such as Albania.

At the same time, many countries in the EBRD regions serve as transit and/or host countries for refugees and irregular migrants. According to survey data, the vast majority of those people (especially those coming from Syria, Afghanistan and Iraq) leave their country in order to escape conflict. However, there are also substantial numbers of irregular migrants (particularly those coming from countries such as Algeria, Morocco and Pakistan) who are driven mainly by a desire to seek out better economic opportunities. Further analysis shows that, like prospective economic migrants, refugees and irregular migrants also tend to be single, male, young and relatively well-educated.

It appears that refugees and irregular migrants often select their intended country of destination on the basis of their skills and the asylum procedures in the relevant country. In particular, better-educated people are more likely to head for countries where estimated returns to education are higher.

http://2018.tr-ebrd.com/internationalmigration

GEOGRAPHIC TRANSITION

When given a choice, people generally choose to live in places with good economic opportunities, and the places with the best opportunities tend to be large, densely populated cities. The numbers of people living in sparsely populated areas of the EBRD regions are declining, while cities with populations in excess of 500,000 people have either grown or experienced lower rates of population loss than smaller cities. As a city grows, local markets and pools of skilled workers expand in size, and the provision of public goods tends to become cheaper thanks to economies of scale. Indeed, analysis of the EBRD regions implies that workers in a city twice the size of a similar city nearby are, on average, 5 per cent more productive.

However, growing populations also result in increased congestion and pollution, which detract from people's quality of life. At some point, those factors will start to encourage people to relocate to more sparsely populated areas. Indeed, some large cities in the EBRD regions (such as Warsaw) have seen their populations disperse, with people moving away from densely populated urban areas in search of a less congested living environment.

This chapter uses a spatial model that balances those competing agglomeration and dispersion forces in order to shed light on the long-term economic implications of population shifts in countries where the EBRD invests. That analysis suggests that the EBRD regions' most densely populated areas can be expected to achieve the largest increases in well-being by 2040, but only if congestion can be kept in check. Investment in municipal infrastructure (such as public transport, water, waste water and recycling) can help in this regard.

The rapid process of urbanisation across the EBRD regions has been accompanied by the gradual emptying-out of large rural areas. In many economies, more than 50 per cent of people live in areas with declining population density. If productivity levels in those areas continue to fall, depopulation risks becoming self-reinforcing. Investment aimed at boosting economic efficiency (for instance, through improved irrigation in rural communities) can help to mitigate these changes to some extent.

The spatial model that is used in this chapter also shows that upgrades to infrastructure – such as roads and railways in the Western Balkans or transport links forming part of China's Belt and Road Initiative – deliver substantial economic gains to the communities that those new transport routes pass through. However, those effects become markedly weaker as distance from the upgraded infrastructure increases.

http://2018.tr-ebrd.com/internalmigration

MACROECONOMIC OVERVIEW

Following several years of relatively weak economic performance, growth in the EBRD regions averaged 3.8 per cent in 2017 – the second consecutive year of strengthening growth. That growth was broad-based, with support provided by stronger investment activity and increases in exports. External financing conditions have remained broadly favourable, encouraging firms to take on more debt (which is often denominated in foreign currencies).

In the longer term, the growth trajectories of countries in the EBRD regions are, to a large extent, shaped by those economies' demographic profiles. When analysing countries' economic performance, the concepts of GDP growth, per capita income growth and labour productivity growth are often used interchangeably. However, the large differences across economies in terms of their demographic profiles imply that the relationships between these three indicators are in fact complex and country-specific. Indeed, some EBRD regions (such as central Europe and the southern and eastern Mediterranean, for instance) have similar rates of real output growth, but differ considerably in terms of the speed of per capita income convergence and the underlying growth in output per worker.

http://2018.tr-ebrd.com/overview

STRUCTURAL REFORM

A number of countries have made progress in terms of the six key qualities of a sustainable market economy (as introduced in last year's *Transition Report*), with no significant declines being observed in the relevant scores. The business climate has improved further in several countries in eastern and south-eastern Europe and the Caucasus, leading to the upward revision of scores for competitiveness. Those same regions have also seen the upward revision of scores for integration, largely owing to improvements in the quality of logistics services and related infrastructure.

Many economies where the EBRD invests have made progress in the area of green transition by ratifying the Paris Agreement and making legislative commitments to reduce greenhouse gas emissions. Only very modest progress has been made in the area of financial resilience, but energy resilience appears to have improved across the EBRD regions. For example, Ukraine's energy resilience score has increased significantly, thanks to major improvements to the legal and regulatory framework governing the country's energy sector, a stronger role for Ukraine's independent energy regulator and further progress with tariff reforms.

Some progress appears to have been made with financial aspects of youth and gender inclusion, but progress in other areas of inclusion has been lacking. Only modest progress has been observed in the area of governance, with increases in scores generally concentrated in eastern Europe and the Caucasus.

On the negative side, the risk of inadequate compliance with frameworks aimed at combating anti-money laundering and the financing of terrorism (AML/CFT) has increased in a number of economies where the EBRD invests, particularly in the southern and eastern Mediterranean, Central Asia and south-eastern Europe. Moreover, in several countries, the perceived transparency of government policymaking has also declined. Meanwhile, non-performing loan ratios have increased further in Kazakhstan and Ukraine, and banking-sector liquidity has deteriorated in certain Central Asian countries, weighing on indicators of financial resilience. With few exceptions, net FDI and non-FDI capital inflows have remained unchanged or declined as a percentage of GDP.

http://2018.tr-ebrd.com/reform