

EXECUTIVE SUMMARY

SYSTEM UPGRADE: DELIVERING THE DIGITAL DIVIDEND

This report explores ways in which economies in the EBRD regions can deliver the digital dividend, both in the context of the global Covid-19 pandemic and beyond. Building on rich sources of data, it introduces a new index of digital transformation and provides an overview of digital divides across and within countries.

While economies with medium levels of digitalisation have been catching up with advanced economies, those with the lowest levels have been falling further behind. Within countries, while individuals with medium levels of education and income and the middle-aged have been catching up with the most digitally literate, older individuals and those with lower levels of education and income are increasingly being left behind.

Digitalisation is affecting the world of labour across the EBRD regions. While the effect is limited, occupations that are more exposed to automation through the use of artificial intelligence have seen more job losses. Consequently, upskilling to support workers' transition to higher-skill, less automatable occupations remains a key policy challenge. More generally, this report finds that underdeveloped digital skills are the key constraint holding back digital upgrades to economic systems in many parts of the EBRD regions.

Despite improvements in internet infrastructure over the last 15 years, many economies in the EBRD regions are still lagging behind western European comparators, especially when it comes to faster 4G and broadband technologies. A case study looking at Turkey shows how internet connectivity can enable firms to reach out to distant export markets. As digital technologies help the best-run companies to improve their productivity, digitalisation has also been contributing to increased divergence of performance across firms – a trend that has been further amplified by the Covid-19 crisis.

Digitalisation is also transforming the global financial system, with fintech innovators such as peer-to-peer lending platforms putting pressure on banks. Banks' response to those competitive pressures has been twofold. On the one hand, banks themselves have started to make substantial investments in various new technologies, from digital wallet solutions to sophisticated algorithms for screening borrowers. On the other hand, they have also responded by expanding their online banking services, while pruning their branch networks. The growth of digital finance has improved access to financial services for households and small businesses, but it is not without risk.





DIGITAL DIVIDES

Investment in digital technologies can boost productivity growth by increasing the efficiency with which resources are allocated across industries and by allowing capital and labour to be combined more effectively within individual sectors. However, the pace of digitalisation has been uneven.

Large digital divides have emerged across countries, with the gap between the EBRD regions and advanced economies being especially pronounced for advanced technologies. Some digital divides have narrowed over the last five years, as economies with medium levels of digitalisation have made significant gains. However, many economies with low adoption rates for digital technologies have seen limited improvements and are falling further behind.

Most of the EBRD regions have seen significant improvements in digital infrastructure. Updating the relevant regulations will now become more important, since more advanced technologies require more complex regulatory and legal frameworks.

Insufficient skills are the key constraint impeding digitalisation in many economies in the EBRD regions. Indeed, the returns to investment in digital-intensive capital are significantly higher in economies with stronger skills. While workers in those regions are just as likely to access free independent training on digital skills as their counterparts in advanced economies, the amount of training provided by employers is considerably lower than in advanced comparators. Furthermore, many economies in the EBRD regions are experiencing significant “brain drain”, as people with strong digital skills are moving abroad.

Within economies, individuals with medium levels of education and income and the middle-aged are catching up with the most digitally literate. However, older individuals and those with lower levels of education and income are increasingly being left behind.

Digital divides may also contribute to increased divergence in the performance of firms, with larger, better-managed and more innovative firms being more likely to reap digital dividends. Such firms are also more likely to have increased their use of digital technologies during the Covid-19 crisis.

<https://2021.tr-ebd.com/digital-divides>



DIGITAL INFRASTRUCTURE AND FIRMS' PERFORMANCE

The digitalisation of information and its dissemination via the internet can bring substantial benefits for firms. It can facilitate the finding of new products, improve the matching of workers to firms, reduce the time and effort required to learn new skills, and expand firms' market reach.

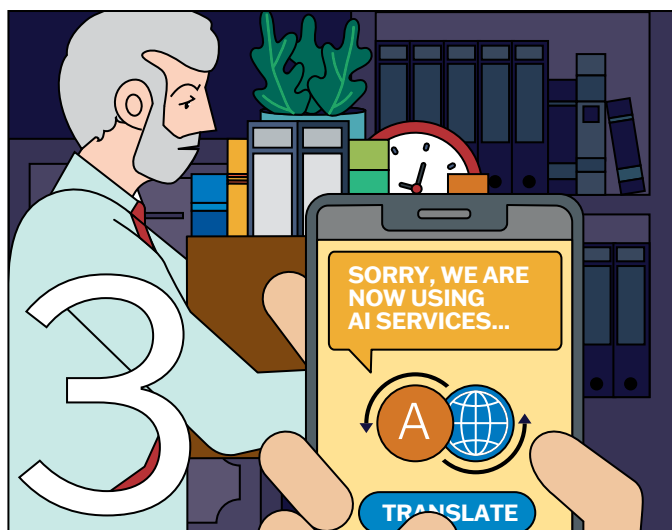
The accessibility of fixed broadband and mobile internet has increased substantially in the EBRD regions over the last 15 years. Countries with higher GDP per capita and greater population density generally provide mobile internet to larger percentages of their populations. However, many economies in the EBRD regions still lag behind western European peers, especially as regards faster 4G technologies. While there are many economies where nearly everyone has access to 4G mobile internet, coverage rates of between 20 and 80 per cent remain common. The adoption of fixed broadband also remains relatively limited in the EBRD regions, despite it offering some of the fastest connection speeds.

A case study looking at high-speed broadband in Turkey shows that firms with better connectivity are more likely to export and introduce new products. Small manufacturing firms have benefited most from Turkey's improved broadband infrastructure, which has allowed them to sell to new foreign markets.

In Russia, meanwhile, smaller firms have, on average, increased staff numbers by about 19 per cent following the roll-out of 4G. The effect on hiring has been especially strong for the smallest firms in the service sector. Those firms have also been more likely to introduce new products or processes on the back of their increased use of digital technologies.

Overall, the evidence suggests that improvements in digital infrastructure may be particularly beneficial for small firms and their workers, partially offsetting the negative impact that digitalisation may have on economic inclusion through other channels.

<https://2021.tr-ebd.com/digital-infrastructure-and-firms-performance>



TELEWORKING, AI AND THE LABOUR FORCE

Digitalisation is changing the jobs that we do and the way that we do them. That digital transformation has taken a leap forward during the pandemic, as Covid-19 has accelerated the adoption of digital tools, especially for people working from home. In the EBRD regions, young people and women are more likely to have “teleworkable” occupations than older cohorts and men. What is more, people with a tertiary qualification are up to three times more likely to have a teleworkable occupation than those with lower levels of education.

An EBRD survey on attitudes towards working from home that was conducted in summer 2021 shows growing support for a more flexible approach to work, with employees feeling that they are more productive at home. However, many employers are unwilling – or unable – to embrace frequent remote working. That may partly reflect a lack of trust, since economies with greater interpersonal trust tend to have larger percentages of employees working from home, even after controlling for the teleworkability of occupations and industries.

Overall, reported levels of remote working are weakly correlated with the levels that one might expect given the structure of individual economies and the teleworkability of their occupations. Poor digital skills are probably also a barrier to greater remote working, especially among older workers. Unlike in advanced economies, older cohorts in the EBRD regions are less likely to have teleworkable occupations than younger workers.

While the effect is limited, occupations that are more exposed to automation involving artificial intelligence have experienced greater job losses in the EBRD regions. Thus far, automation has predominantly resulted in medium and low-skill jobs being replaced with higher-skill jobs. Upskilling to support workers’ transition to higher-skill, less automatable occupations remains a key policy challenge.

<https://2021.tr-ebd.com/teleworking-ai-and-the-labour-force>

4



FINTECH AND BANKS IN TRANSITION

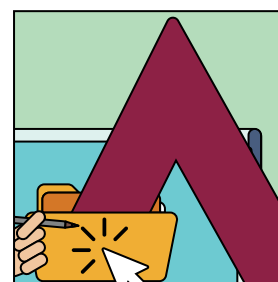
Technological disruption is transforming financial services across the EBRD regions. Indeed, banks’ CEOs regard digitalisation as the biggest challenge they will face in the coming years. While alternative finance is still a fairly new concept in many EBRD regions, a number of countries in those regions are relatively advanced in specific areas, such as peer-to-peer lending. In contrast, equity-based models – such as equity-based crowdfunding – remain virtually non-existent. Thus, the advent of alternative finance has exacerbated emerging Europe’s heavy dependence on debt instruments and has not contributed to the much-needed rebalancing of financial systems.

A large-scale survey of bank CEOs reveals significant variation in banks’ strategies when it comes to responding to digitalisation. On the one hand, banks themselves have now started to make substantial investments in new technologies – particularly digital wallet solutions, biometric identification systems and sophisticated algorithms for screening borrowers. On the other hand, they have also responded by expanding their online banking services, while pruning their branch networks.

Small firms and households both have the potential to benefit from further digitalisation in the financial sector. As this chapter shows, digital infrastructure in the form of faster mobile internet has helped to ease credit constraints on businesses and allowed households to access a broader palette of financial services.

While branch reduction is a key part of banks’ digitalisation strategies, this chapter shows that access to mobile networks is most beneficial to firms located in districts with relatively large numbers of physical bank branches. Thus, digitalisation could potentially exacerbate firms’ credit constraints in regions that lack access to high-quality mobile networks and have low levels of branch density. Those regions risk being left behind in terms of both digital infrastructure and traditional delivery channels for banking services.

<https://2021.tr-ebd.com/fintech-and-banks-in-transition>



THE FINANCIAL MARKET DEVELOPMENT INDEX

This chapter introduces a new index capturing the development of financial markets in the EBRD regions and comparator economies. The first part of the index covers conditions that support the supply of capital market instruments: the macroeconomic environment, legislative and regulatory frameworks, market infrastructure and the depth of the local investor base. The second part captures the depth, liquidity and diversification of markets across several different asset classes. The two parts are closely related, although smaller economies tend to have markets that are shallower than the supporting conditions alone might suggest.

Despite notable improvements since 2014 in terms of the conditions for financial market development, the EBRD regions still face substantial challenges. The absence of a well-developed local investor base is a key constraint in most economies that lack well-established defined contribution pension systems. In addition, life insurance companies tend to have low investment capacity.

While market infrastructure tends to be a key constraint in economies with less developed financial markets, more developed markets (including Poland and Slovenia) also face challenges in the area of clearing and nominee accounts.

Macroeconomic conditions are less of a constraint in the EBRD regions. However, several economies still have significant dollarisation of loans and deposits. And in smaller, less developed markets, interest rate differentials between comparable debt instruments denominated in local and foreign currencies can be large and persistent, exceeding average long-term currency depreciation by 5 percentage points or more.

Overall, south-eastern Europe and Russia have seen the greatest improvements in conditions supporting financial market development. Overall progress in reducing the distance to the frontier has been slowest in Turkey and the southern and eastern Mediterranean, where improvements in market infrastructure have been offset by weak macroeconomic frameworks.

<https://2021.tr-ebd.com/financial-market-development>



STRUCTURAL REFORM

This section presents updated transition scores for the EBRD regions and discusses reforms implemented by governments. As well as examining developments over the last year, it also adopts a medium-term perspective, assessing scores over the period 2016-21. It focuses on six key qualities of a sustainable market economy, looking at whether economies are competitive, well-governed, green, inclusive, resilient and integrated.

While the pandemic has caused substantial economic turmoil, many governments have pushed ahead with reform agendas or restarted reform efforts that were temporarily on hold owing to the increased uncertainty. Those developments are reflected in improved transition scores, particularly as regards governance, the green economy and economic resilience. At the same time, several economies have seen declining scores and the reversal of reforms, particularly as regards inclusion.

Improvements over the last year have been concentrated mainly in central Europe and the Baltic states, south-eastern Europe and Central Asia. Declining scores, meanwhile, have been observed primarily in eastern Europe and the Caucasus and the southern and eastern Mediterranean.

Over the period 2016-21, most economies have made steady progress with improving the business climate, enhancing SMEs' access to finance and supporting the knowledge economy. Improvements relating to governance have been driven mainly by increased compliance with AML/CFT standards, greater protection of intellectual property rights, improved frameworks for challenging regulations and greater participation in e-government. Declines in that area primarily reflect gradual deteriorations in the effectiveness of courts, informality, perceived corruption and frameworks for challenging regulations. Meanwhile, improved green scores reflect stronger commitments to reducing greenhouse gas emissions. A number of countries have also seen their financial resilience scores improve, driven by declining NPL ratios and progress with legal and regulatory frameworks, while improvements to integration scores reflect the upgrading of ICT infrastructure.

<https://2021.tr-ebd.com/structural-reform>