2 GOVERNANCE AT MUNICIPAL AND REGIONAL LEVEL

The quality of governance varies significantly, not just across countries, but also within them, reflecting differences in the responsibilities assigned to subnational government entities, as well as variation in the enforcement and implementation of national regulations. Such differences are especially pronounced in countries with poor governance and relatively low levels of subnational spending. Disparities across subnational regions have increased over time in most of the economies in the EBRD regions, and regional factors have become more important when it comes to explaining people's perceptions of governance. The findings of this chapter suggest that improving regional and municipal governance can result in large payoffs in terms of economic growth, firms' performance and individual well-being.

Introduction

The previous chapter highlighted the key role that is played by the quality of governance when it comes to growth, firm-level outcomes and satisfaction with life. While the quality of governance is often thought of as a country-level characteristic, many aspects of governance are dependent on regulations established at regional or municipal level and, crucially, the way in which regulations are enforced at a local level. For example, it is usually local officials who handle applications seeking connection to the electricity supply or applications for operating licences, often on the basis of national legislation. Similarly, individuals' perceptions of governance will largely depend on their experiences with hospitals, schools and the police in the area where they live.[1]

As countries become richer, public spending and decision-making tends to become more decentralised. Demand for public goods and services shifts beyond the provision of law and order, roads and basic healthcare to include more specialised services such as nurseries, cycle lanes and the management of local green spaces. Decentralised decision-making is, in principle, better at matching economic policies to local circumstances or residents' preferences.[2]

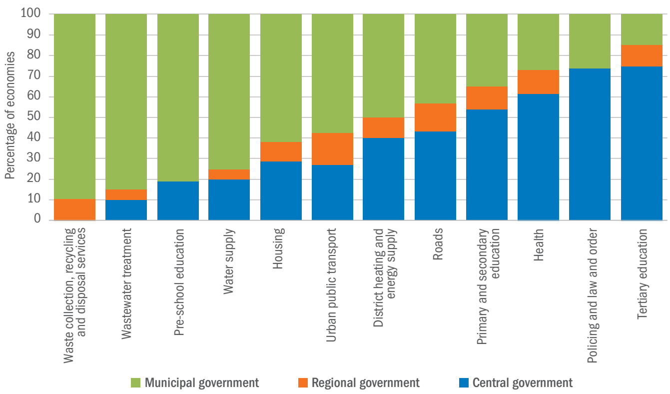
In the EBRD regions, municipal administrations typically have primary responsibility for providing public services such as waste collection, wastewater treatment, the water supply and pre-school education, as well as some responsibilities in the areas of housing, urban public transport and heating. Regional administrations are often responsible for urban public transport and roads, with higher levels of responsibility in economies with federal structures. Such arrangements vary significantly within countries. This chapter starts by providing an overview of the responsibilities of municipal administrations in the EBRD regions, as well as the corresponding governance arrangements, on the basis of an EBRD survey.

This chapter goes on to show that the quality of governance varies significantly within countries. Moreover, the degree of variation has increased over time. This suggests that, even in the absence of major changes to legislation or the quality of economic institutions at a national level, improvements in governance can still be achieved at a local level.

Motivated by that fact, this chapter shows that improving regional and municipal governance within a country can result in significant benefits for regional growth, firms' performance and individual well-being. Around 95 per cent of municipalities in the EBRD regions see regulatory processes and political or regulatory instability as obstacles to their operations – significantly more than in advanced European economies. These constraints are, in turn, associated with lower satisfaction ratings for individual cities and lower levels of satisfaction with public services. The final section shows that people are more likely to want to leave regions with inferior governance, and that regions with superior governance are more successful at attracting foreign investment.

CHART 2.1.

Tiers of government with legal responsibility for service delivery, by area



Source: EBRD Capital Expenditure and Investment by Municipalities Survey and authors' calculations.

[1] See EBRD (2016). See also EBRD (2012) for a discussion of regional variation in the business environment and Rodríguez-Pose (2013) and Rodríguez-Pose and Di Cataldo (2015) for a discussion of the importance of regional institutions and cultural norms.

[2] See Prud'homme (1995).

Subnational governance in the EBRD regions

This section provides an overview of the legal responsibilities, funding sources and governance of municipalities in the EBRD regions on the basis of an EBRD survey looking at capital expenditure and investment by municipalities. That survey, which was conducted in 16 economies in the EBRD regions at the end of 2018, took the form of a questionnaire completed by countries' ministries of finance or other central agencies with responsibility for overseeing municipal finances. That questionnaire covered governance structures and financing arrangements at subnational level.

In more than three-quarters of the economies covered, municipalities are responsible for waste collection, wastewater treatment and the water supply, as well as pre-school education. And in more than half of those countries, municipal administrations are responsible for housing, urban public transport and heating (see Chart 2.1). Central governments, on the other hand, typically look after policing, law and order, tertiary education and healthcare. With the exception of economies with federal structures, regions tend to have fewer legal responsibilities in the economies of the EBRD regions, with most revolving around urban public transport and roads.

Municipal investment is mostly financed using municipalities' own resources and transfers from central government, although programmes co-financed by the EU are one of the main sources of funding in most economies in central and south-eastern Europe. Reimbursable funding comes primarily from bank loans or national development banks, with capital markets not generally being used as a source of funding.

IN MORE THAN THREE-QUARTERS OF THE ECONOMIES COVERED IN THE EBRD SURVEY OF MUNICIPALITIES, MUNICIPAL AUTHORITIES ARE RESPONSIBLE FOR WASTE COLLECTION, WASTEWATER TREATMENT, WATER SUPPLY AND PRE-SCHOOL EDUCATION

95% OF MUNICIPALITIES IN THE EBRD REGIONS SEE THE LENGTH AND VARIABILITY OF REGULATORY PROCESSES AS OBSTACLES TO THEIR OPERATIONS

Most municipalities covered by the survey have some form of urban development strategy and a multi-year budget plan, although only half have green development strategies. This mirrors the findings of Enterprise Surveys in the EBRD regions, which show that firms' environmental management practices lag behind overall management practices (as discussed in Chapter 4). About half of all respondents report that municipalities regularly carry out independent assessments of the budgetary implications, social costs/benefits and environmental impact of infrastructure projects (with such independent assessments constituting a legal requirement in less than 30 per cent of cases).

Meanwhile, municipalities in all economies covered by the survey award major municipal-funded contracts via tender procedures, with online publication in three-quarters of cases. That being said, the minimum length of such tender procedures varies significantly across countries – from 7 days in Armenia to 37 days in Montenegro.

In two-thirds of those economies, municipalities tend to coordinate frequently with metropolitan authorities and regional and central governments. However, coordination with neighbouring municipalities is common in fewer than a fifth of economies, reflecting the legacies of more centralised economic systems.

Even if legal responsibility does not lie with the region or municipality, the actual provision of services or enforcement of economy-wide legislation can still vary significantly at a local level. For instance, a recent study found that once Serbia had transferred responsibility for registering new firms from district courts to a central agency, the rate at which new businesses were registered increased much faster in districts where trust in the courts was weak.[3]

The next section examines the extent to which the quality of governance varies across regions within individual countries on account of differences in legal frameworks and the delivery of public services.

[3] See Bruhn et al. (2018).

Subnational variation in governance

Significant intra-country regional variation in institutional quality

The European Quality of Government Index (EQI) points to high levels of intra-country variation in the quality of governance, with significant differences between countries' best and worst performing regions (see Chart 2.2). This index, which only covers EU member states and is based on surveys completed by individual residents, includes, for instance, residents' perceptions of the quality of public education, public healthcare and policing, the question of whether certain people are given special advantages in the provision of such public services or are treated differently by the police or tax authorities, and the question of whether respondents have been asked for or given a bribe (see Box 2.1 for details). Bulgaria has the largest regional disparities relative to the average quality of governance in the economy, followed by Italy.

Intra-country differences in the quality of institutions are large relative to cross-country differences. For instance, the EQI score of the worst-performing region in Hungary is comparable to the average in Romania, whereas the quality of governance in the best-performing region in Hungary is comparable to that seen in the worst-performing region in Spain. Such intra-country heterogeneity is especially pronounced in Bulgaria and Romania (with the quality of governance perceived to be weakest in the south-eastern regions of each country). Considerable variation can also be found in Belgium (where the quality of governance is significantly lower in Wallonia than it is in Flanders), Italy (where the southern regions of Calabria, Abruzzo and Campania have weaker governance) and Spain (where the Canary and Balearic Islands and the southern region of Andalusia all have relatively low EQI scores). In contrast, levels of regional variation are much lower in Nordic countries.[4]

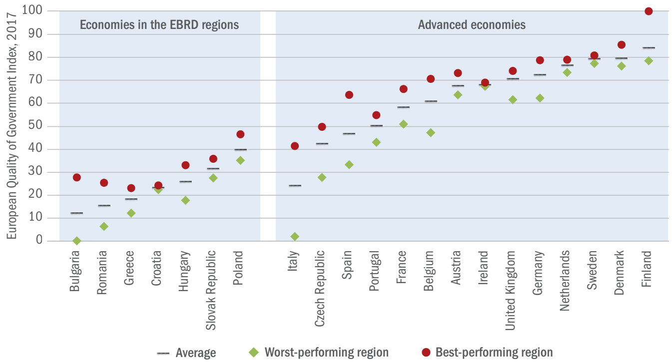
Countries with poor governance tend to have more subnational variation as well

The pattern that emerges suggests that intra-country differences in governance are larger in countries with lower average levels of governance (see Chart 2.3). For instance, while the quality of governance in Bucharest or Sofia is almost the same as that observed in Bratislava, those countries' other regions are currently lagging some way behind. In contrast, the Nordic countries stand out not only for the high average quality of their governance, but also for their greater uniformity in the quality of governance across regions.

Intra-country disparities also tend to be larger in countries where spending by municipalities and regions is lower (see Chart 2.4). Regional and municipal governments account

CHART 2.2.

The quality of governance varies significantly within countries



Source: European Quality of Government Survey and authors' calculations.
Note: Higher values for the index (which has a scale of 0 to 100) correspond to superior governance.

[4] A similar picture emerges when looking at regions in the 90th and 10th percentiles of the distribution of governance, rather than the best and worst-performing regions.

for just over a fifth of general government spending in the economies of the EBRD regions, equivalent to around 8 per cent of GDP. In contrast, in Europe's advanced economies subnational spending accounts for around 30 per cent of general government spending, or about 14 per cent of GDP, according to IMF data.

In line with that finding, municipalities in the EBRD regions also tend to report that financing represents a key constraint on their operations. The results of an EIB survey of municipalities suggest that around three-quarters of municipalities in emerging Europe regard limits on borrowing as an obstacle to municipal investment, compared with just over half in advanced European economies. Revenue collection tends to be less decentralised than expenditure responsibilities, reflecting the potential pitfalls of tax competition between different regions. This imbalance between own revenues and expenditure responsibilities is especially acute in many economies in the EBRD regions.

8%

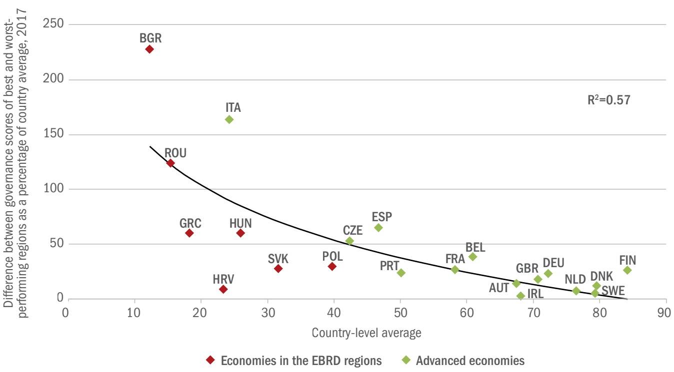
SUBNATIONAL SPENDING AS A PERCENTAGE OF GDP IN THE EBRD REGIONS

14%

SUBNATIONAL SPENDING AS A PERCENTAGE OF GDP IN ADVANCED EUROPEAN ECONOMIES

CHART 2.3.

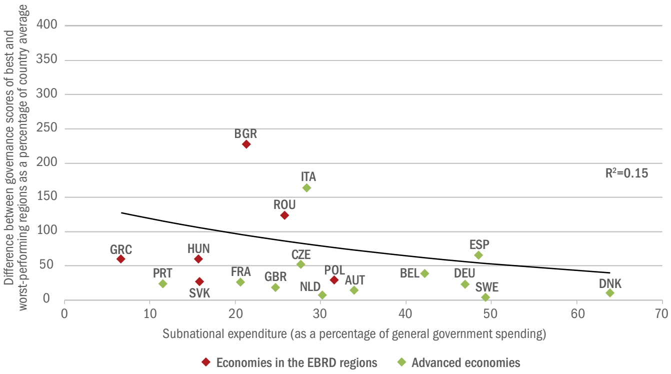
The quality of governance varies more in countries with poor governance



Source: European Quality of Government Survey and authors' calculations.
Note: The line shows the logarithmic trend line.

CHART 2.4.

The quality of governance varies more in countries with lower subnational spending



Source: European Quality of Government Survey and authors' calculations.
Note: The line shows the logarithmic trend line.

Evidence from Enterprise Surveys

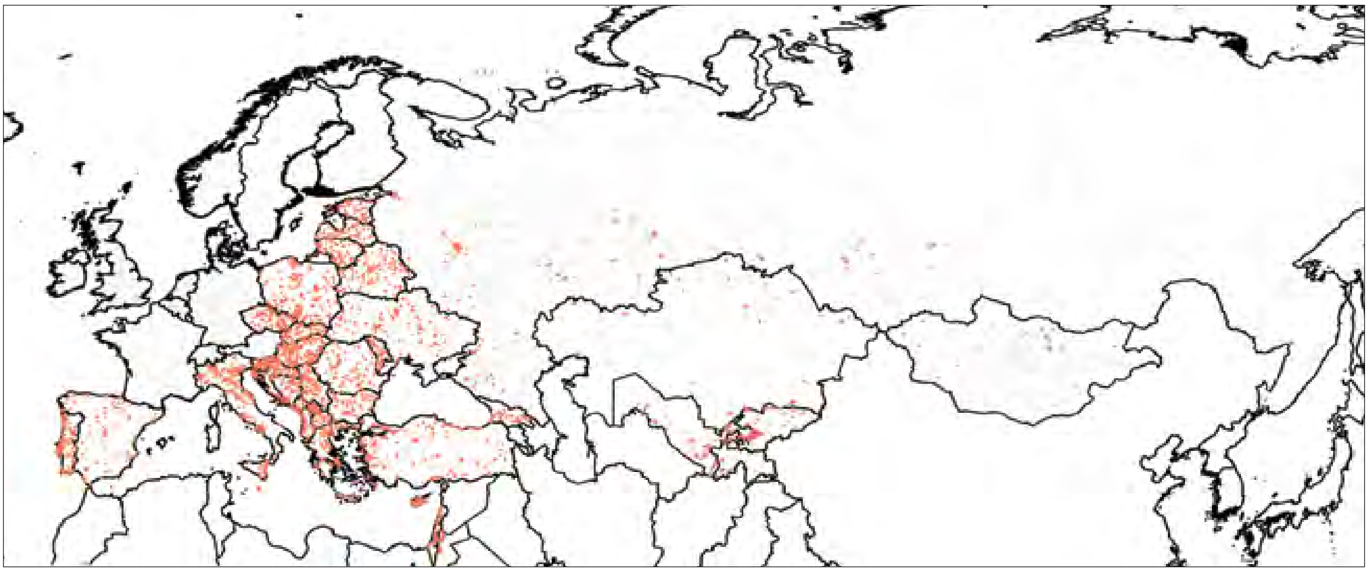
Substantial variation in governance at regional level can also be seen in the results of Enterprise Surveys conducted in 2018-19 (see Chapter 1 for details of those surveys). Respondent firms' locations (depicted in Chart 2.5) can be used to construct regional averages of governance perceptions, with those measures being established on the basis of whether a firm reports that an informal gift was requested or expected in connection with a recent application seeking connection to the electricity or water supply, an import licence or an operating licence, as well as the average percentage of total annual sales that surveyed firms report spending on informal payments to public officials (see Chart 2.6 and the discussion in Chapter 1). Significant subnational variation can also be observed in respect of the factor that firms regard as the main obstacle to their operations (see Chart 2.7).

75%

OF MUNICIPALITIES IN THE EBRD REGIONS REGARD LACK OF FINANCING AS AN OBSTACLE TO THEIR OPERATIONS

CHART 2.5.

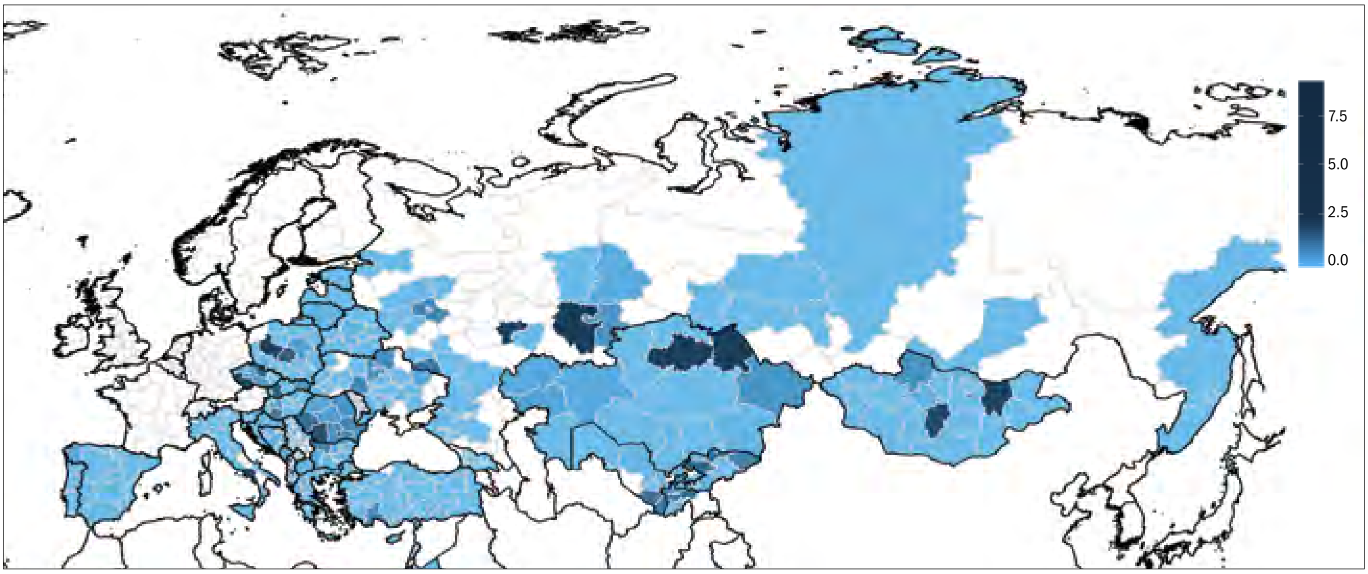
Location of respondent firms in Enterprise Surveys



Source: Enterprise Surveys and authors' calculations.

CHART 2.6.

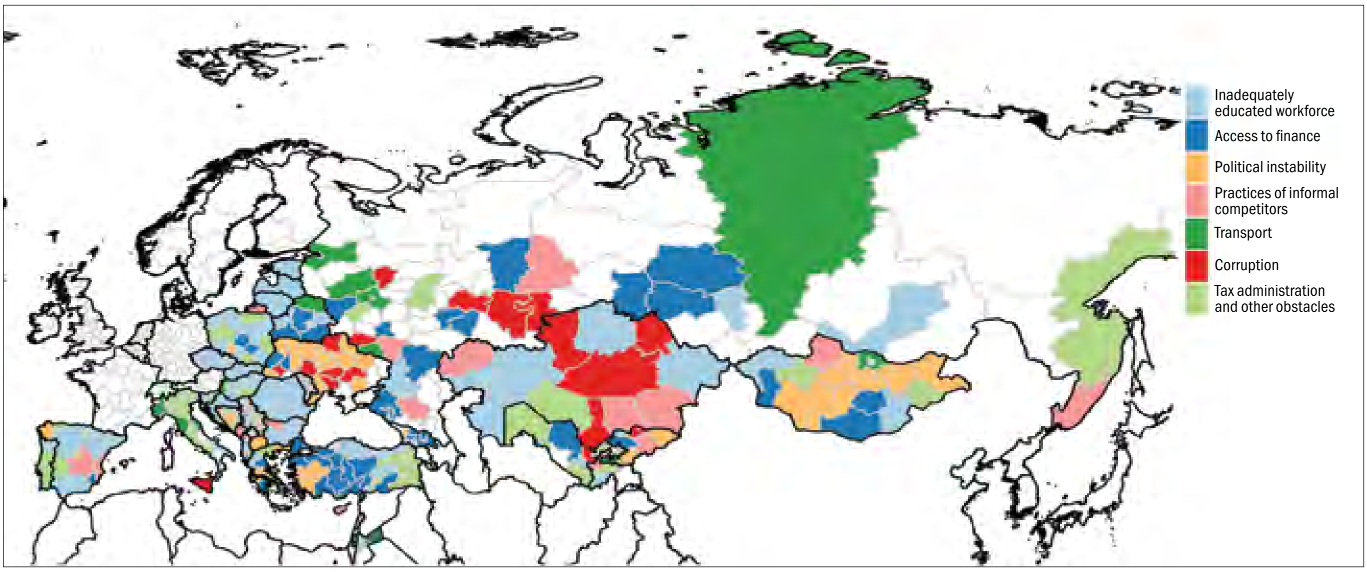
Intra-country variation in informal payments as a percentage of sales



Source: Enterprise Surveys and authors' calculations.

CHART 2.7.

Intra-country variation in respect of the factor that firms regard as the main obstacle to their operations



Source: Enterprise Surveys and authors' calculations.

Rising subnational variation in the quality of governance

Large intra-country differences in the quality of governance can be temporary if certain regions improve their governance and others learn from those improvements and catch up over time. For example, intra-country regional variation in institutional quality has fallen in Romania as gains have spread across regions (with the exception of the north-west of the country).[5] In some instances, cities have pioneered legislation that may eventually be adopted at national level, whether as regards environmental protection, universal basic income or driverless cars. However, the transmission of good governance practices from better-performing to worse-performing areas is far from automatic.

In fact, between 2010 and 2017 intra-country disparities in governance actually increased in more than 70 per cent of all economies for which EQI data are available for that period (a sample which includes both economies where the EBRD invests and advanced economies; see Chart 2.8). In Bulgaria, for instance, variation in the quality of governance rose sharply, with governance improving in the south-west (including Sofia) and the north-central region, while the north-east and south-central regions fell further behind. Gaps also widened significantly in Spain, with the quality of governance falling in the south (Andalusia and Valencia) as perceptions of bribery and special treatment in public services increased, while several northern regions (Cantabria, Navarra and Basque Country) experienced improvements. Disparities increased in the Czech Republic, too, with Prague, Jihovýchod and Central Moravia experiencing significant gains, while the north-western border region consistently lagged behind.[6]

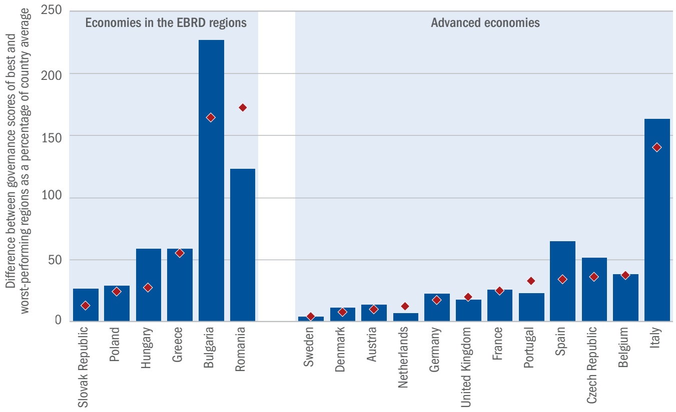
Rising variation in subnational governance: further evidence from household and firm-level surveys

Similar patterns showing rising variation in subnational governance can also be seen in household and firm-level surveys with global coverage. In the case of the Gallup World Poll, a global household survey,[7] intra-country differences at regional level explain around 10 per cent of total variation in perceptions of governance across the EBRD regions (see Box 2.2 for details of this analysis). Cross-country differences explain a further 13 per cent, and the rest can be attributed to differences in responses across individuals *within* each region (with a small share being explained by age, gender and other observable individual characteristics; see Chart 2.9). Similar patterns can be observed in the perceptions of the business environment that are reported by firms in the context of the Enterprise Surveys conducted by the World Bank, the EBRD and the EIB.

In terms of individual features of the business environment, regional differences matter most for business licensing, access to land and other aspects that tend to fall within the remit of regional governments, as well as infrastructure, the quality of which tends to vary significantly across regions (see Chart 2.10).

CHART 2.8.

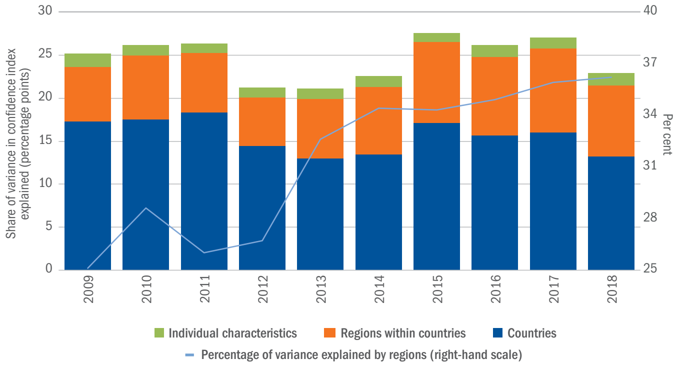
Subnational differences in institutional quality increased between 2010 and 2017



Source: European Quality of Government Survey and authors' calculations.

CHART 2.9.

Subnational differences explain an increasing share of total variation in perceptions of governance



Source: Gallup World Polls and authors' calculations.
Note: Based on conditional variance decomposition.

[5] More generally, while spillovers from one region to another over time are difficult to identify directly, regions with better governance tend to be near other regions with good governance. Within countries, regions that are further from the capital tend to have worse governance, although this effect is not statistically significant when controlling for stocks of human and physical capital (which may themselves reflect the quality of governance, as discussed in Chapter 1).
[6] See also Charron and Lapuente (2018).
[7] See Chapter 1 for details.

The share of variance in individuals' perceptions of governance that is explained by regional differences has also been increasing over time (see Chart 2.9). This trend is not driven by changes in regional composition, since the regions covered by Gallup World Polls are nearly identical across different survey rounds.

This increase in the importance of regional factors may, in part, reflect the increased devolution of decision-making authority to lower levels of government, coupled with more limited decentralisation of funding (which will result in more binding financing constraints). Growing regional inequality (see Chart 2.11) and greater disparities between the fortunes of urban and rural areas (and even booming and struggling cities) may also be playing a role.[8] The next section quantifies the costs of such regional governance gaps for regions that are falling further behind.

The governance dividend at regional level

As at national level, regional governance has implications for firms' performance and individuals' well-being and job opportunities. These, in turn, translate into substantial differences in terms of regions' economic growth.

Path dependence of regional institutions

Improvements in governance at regional level can increase a region's growth rate by making it easier to attract investment and skilled labour to the region, as well as by increasing the productivity of existing resources. In Russia, for instance, it has been shown that improved access to credit only leads to firm-level innovation and greater firm-level productivity in regions with relatively good governance.[9] Stronger growth, on the other hand, could itself attract investment, which could, in turn, result in improvements to institutions and the business environment at a local level.[10] Such reverse causality may reinforce the positive impact that stronger institutions have at subnational level, but it also presents a fundamental difficulty in terms of identifying the effect that improved institutions have on growth.

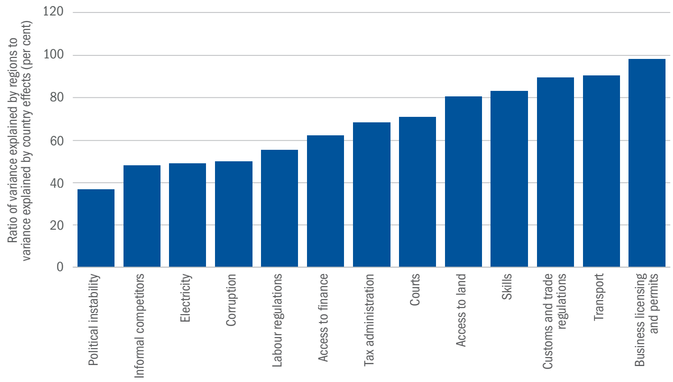
The strongly persistent nature of institutions can help us to address this problem.[11] For instance, Ottoman rule had lasting negative effects on financial development and social norms relating to trust in south-eastern Europe.[12] Habsburg rule, in contrast, has had a positive legacy in terms of lower incidence of corruption.[13]

Thus, former empires have the potential to exert significant influence on institutions (as also illustrated in Box 3.1 in EBRD (2013)). On the other hand, keeping the quality of institutions constant, an imperial past is unlikely to have a direct effect on regional growth or residents' well-being today. Nor would former empires be affected by economic activity today, making them plausible instruments in regressions. Unlike the country-level

IN OVER 80% OF THE ECONOMIES IN THE EBRD REGIONS THAT ARE COVERED BY THE EUROPEAN QUALITY OF GOVERNMENT SURVEY, SUBNATIONAL DIFFERENCES IN GOVERNANCE INCREASED BETWEEN 2010 AND 2017

CHART 2.10.

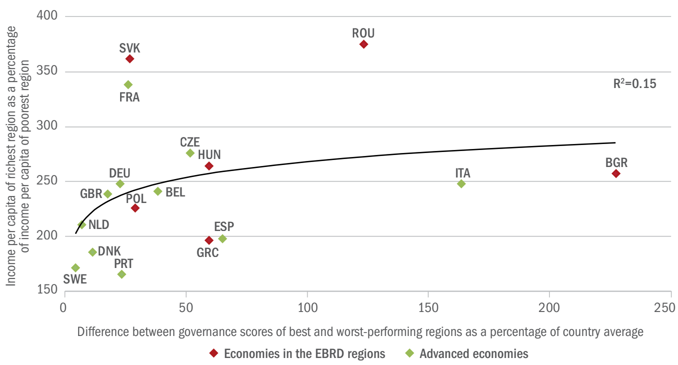
Subnational differences are most pronounced when it comes to business licensing



Source: Enterprise Surveys (2018-19) and authors' calculations.

CHART 2.11.

Larger disparities in governance are associated with higher levels of regional income inequality



Source: European Quality of Government Survey, OECD and authors' calculations.
Note: The line shows the logarithmic trend line.

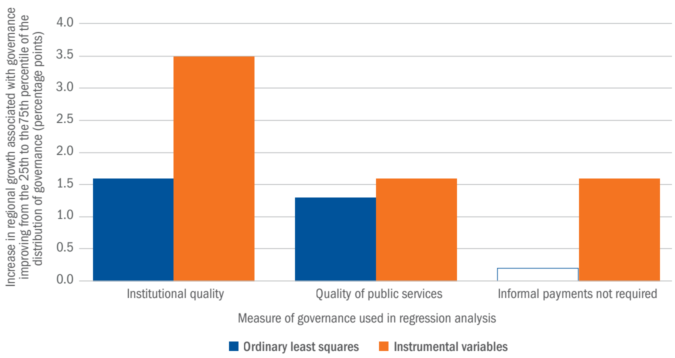
[8] See IMF (2019) and AfDB et al. (2019).
[9] See Bircan and De Haas (2019).
[10] See, for instance, Long et al. (2015) for evidence from China.
[11] There is a large body of literature exploring the long-term legacies of historical institutions and their impact on economic outcomes. See, for instance, Acemoğlu et al. (2001, 2011), Acemoğlu and Johnson (2005), Dimitrova-Grajzl (2007) and Djankov et al. (2003).
[12] See Grosjean (2011a, 2011b).
[13] See Becker et al. (2016).

analysis in Chapter 1, the subnational analysis in this chapter can exploit the fact that the borders of former empires run across several countries today, and country-level institutions can be controlled for in these cases. Subnational variation can then be used to estimate the causal effects that regional governance has on regional growth.

1.7
PERCENTAGE POINTS
ANNUAL GROWTH DIVIDEND IF GOVERNANCE IMPROVES FROM THE LEVEL SEEN IN ROMANIA'S WORST-PERFORMING REGION TO THAT OF ITS BEST-PERFORMING REGION

CHART 2.12.

Regional governance has a large impact on regional growth



Source: Enterprise Surveys, Eurostat, European Quality of Government Survey, OECD, World Bank and authors' calculations.
Note: Based on the regression of regional growth on the quality of regional governance (instrumented using dummy variables based on the boundaries of former empires in Europe). Specifications control for investment, the share of the labour force with tertiary education, the ratio of the young and the old to the working-age population, a dummy variable indicating whether the country's largest city is at least twice the size of its second largest, and country-level corruption. Results are robust to controlling for country fixed effects instead of country-level corruption. Data on institutional quality and the quality of public services are taken from the European Quality of Government Survey; data on informal payments are taken from the Enterprise Surveys. Hollow bars denote effects that are not significant at the 5 per cent level. Standard errors are clustered at country level.

Regional governance has a large impact on regional growth

Analysis based on the path dependence of institutions confirms that improvements in regional governance have a large impact on regional growth (see Chart 2.12). For instance, improving the level of governance from that observed in Romania's worst-performing region (Sud-Est, in the south-east of the country), to that of its best-performing region (Sud-Muntenia, the region surrounding – but not including – Bucharest) would increase regional growth by about 1.7 percentage points a year. Over time, this differential results in a very large cumulative impact on per capita income. Over an individual's working life, this growth differential is sufficient to lift Hungary's GDP per capita to the level of Spain, or to lift Serbia's to that of Poland. Estimates based on the informal payments that firms in Enterprise Surveys report having to make in order to obtain various types of authorisation yield an effect of a similar magnitude: moving to the level of informal payments that is observed in a country's best performing region would boost income growth per capita by an average of 1.6 percentage points a year.

As in the case of country-level governance, institution building at regional level is a challenging task, despite the large economic dividend that is associated with superior institutions. Indeed, the largest improvement observed in the EQI sample between the first survey round in 2010 and the most recent round in 2017 is only about half the size of the difference between the best and worst-performing regions in that particular country. The growth dividend that is associated with the improvements in regional governance that can actually be seen in the EQI data is about 0.9 percentage point a year. This is broadly similar to the country-level governance dividend that is estimated in Box 1.7, noting that the time period that is available to track improvements in regional governance is significantly shorter than that used to identify major improvements to institutions at country level.

Examination of a number of episodes involving large improvements in municipal and regional governance, as reflected in EQI data, points to several common features. In many of these cases, the municipalities and regions in question have scaled up public participation in decision-making, for instance through closer coordination with non-governmental organisations (NGOs) or participatory approaches to budgeting. In Gdansk, for example, residents vote directly on how to spend part of the city's budget, with chosen projects including a new bike park next to a school and a sports field.[14] Many also feature improved coordination with neighbouring municipalities – sometimes across borders, as in the case of Ruse, the biggest Bulgarian port on the River Danube, and Giurgiu, which lies across the river on the Romanian side. The ability of municipalities to leverage available external funding programmes has also played an important role in supporting improvements to the quality of municipal services.

[14] See Garski (2016).

Improvements to regional governance also boost firms' employment growth

The superior growth performance of well-governed regions is based on superior outcomes at the level of individual firms. Better regional governance could, for instance, reduce the amount of uncertainty that is faced by firms, thereby supporting investment and employment growth. Firm-level regressions can be used to estimate the impact that governance has on employment growth while controlling for the size of the firm, the sector and other firm-level characteristics. Here, a single firm's performance is unlikely to affect regional governance directly, mitigating concerns regarding reverse causality, although as better-performing firms may choose to operate in locations with superior governance – as the analysis of foreign direct investment (FDI) projects later in the chapter suggests – the estimates should be interpreted as correlations rather than evidence of causal effects.

This analysis suggests that improving governance has a large impact on employment. Take the EQI measure of impartiality, for example, which captures things like the extent to which all firms are perceived to be treated equally by tax authorities (see Box 2.1 for details). Lifting the level of impartiality from that observed in Poland's worst-performing region to that observed in its best-performing region (Pomorskie, which includes the city of Gdansk) would increase employment growth by about 2.2 percentage points a year, controlling for regional employment growth and country fixed effects (see Chart 2.13). Older, larger firms also tend to experience weaker employment growth, while those with a business strategy tend to do better (as discussed in more detail in Chapter 3).

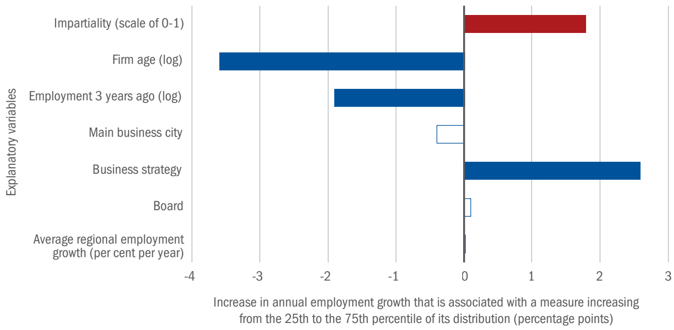
Improvements in governance increase satisfaction with various municipal services

Higher-quality governance at subnational level is also associated with higher levels of satisfaction with the quality of services provided by municipalities. The results of Gallup World Polls indicate that satisfaction with public goods and services (particularly roads, healthcare and education) is generally lower in the EBRD regions than it is in advanced European economies. Regional-level regressions similar to those examining the impact that regional governance has on regional growth can be used to estimate the impact that governance has on satisfaction with such public goods and services. Chart 2.14 shows the impact that confidence in government (as captured by Gallup World Polls) has on average satisfaction with services at regional level.

The results of this analysis suggest that increasing confidence in the government from the level observed in Bulgaria's worst-performing region to the level observed in the country's best-performing region would increase the percentage of people who were satisfied with roads by 1.8 percentage points, corresponding to about 40 per cent of the gap observed between those two regions in terms of satisfaction with roads.

CHART 2.13.

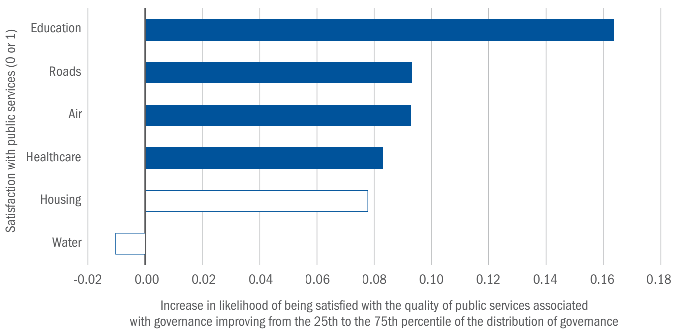
Regional governance has a large impact on firms' employment growth



Source: Enterprise Surveys (2018-19), European Quality of Government Survey and authors' calculations.
Note: Firm-level regressions of employment in the EBRD regions, including country fixed effects. Hollow bars denote effects that are not significant at the 5 per cent level. Standard errors are clustered at country level.

CHART 2.14.

Regional governance also affects satisfaction with services



Source: Gallup World Polls and authors' calculations.
Note: Confidence in the government is instrumented using former empire dummy variables at the level of subnational regions. Specifications control for the logarithm of average regional income per capita in US dollars, the average regional employment rate and country fixed effects. Hollow bars denote effects which are not significant at the 5 per cent level. Standard errors are clustered at country level.

2.2

PERCENTAGE POINTS A YEAR

EMPLOYMENT GROWTH DIVIDEND IF IMPARTIALITY IMPROVES FROM THE LEVEL OBSERVED IN POLAND'S WORST-PERFORMING REGION TO THAT OF ITS BEST-PERFORMING REGION

Regional governance also has a large impact on individual well-being

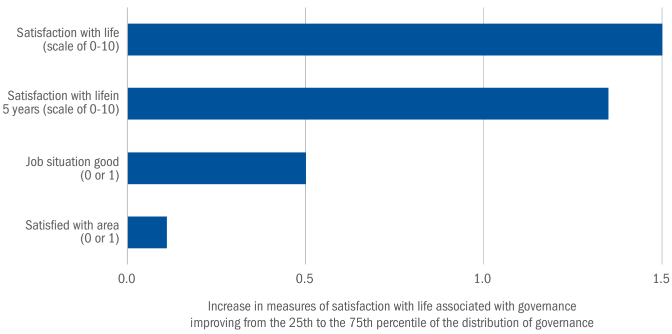
Like governance at country level, superior governance at regional level is also found to improve individual well-being, beyond its impact on per capita incomes, and the estimated impact is again large. Regressions similar to those described above can be used to estimate the impact that governance has on current satisfaction with life and expected satisfaction with life in five years' time (both measured on a scale of 0 to 10), as well as the percentage of the region's population who think that the job situation in their area is good or who are satisfied with their area (see Chart 2.15). All specifications take account of the level of development of the various regions, any characteristics that are common across all regions of a country, and regions' average employment rates.

Improved governance has a large impact on satisfaction with life. For instance, increasing confidence in the government from the level observed in Hungary's worst-performing region to that of its best-performing region would increase average regional satisfaction with life by about 1.3 points on a scale of 0 to 10 – more than 1 standard deviation of satisfaction with life in this sample. Similar results can be obtained using individual-level regressions controlling for a range of individual and regional characteristics, as well as measures of individuals' propensity to complain (see the discussion of the "kvetch effect" in Chapter 1).

The analysis in this section has looked at the performance of firms and life satisfaction of individuals who already reside in a given region. The next section examines the ways in which regional governance can influence the actions of individuals and firms when they are deciding where to reside.

CHART 2.15.

Regional governance has a large impact on individual well-being



Source: Gallup World Polls and authors' calculations.
Note: Confidence in the government is instrumented using former empire dummy variables at the level of subnational regions. Specifications control for the logarithm of average regional income per capita in US dollars, the average regional employment rate and country fixed effects. All effects are significant at the 5 per cent level. Standard errors are clustered at country level.

Subnational competition for resources

In particular, the analysis below shows that people are more likely to want to leave regions with inferior governance, and that regions with superior governance are more successful in attracting foreign investment.

Improvements in regional governance reduce residents' intentions to leave the area

As Box 1.2 in Chapter 1 showed, improvements in country-level governance reduce people's intentions to emigrate. What is more, regional analysis of intentions to emigrate reveals that, within countries, those intentions are most pronounced in the regions with the weakest governance. For instance, increasing confidence in the government from the level observed in Bulgaria's worst-performing region to that observed in Bulgaria's best-performing region would reduce the percentage of individuals who wanted to emigrate by about 1 percentage point, even after taking into account regional differences in income per capita and labour market conditions. This accounts for almost a fifth of the gap observed between those two regions in terms of average intentions to emigrate.

At the same time, outward migration is also likely to change the profile of regions' populations and workforces. The young and the better educated tend to be more able and willing to leave. Mobility is lowest among the unemployed.[15] A decline in the population as a result of outward migration can make the provision of local public goods and services hard to sustain. Having too few school-age children, for example, may result in the closure of schools in small settlements, resulting in further outward migration by people who are dependent on schooling, leading to a vicious circle of population decline and dissatisfaction with the quality of public services. Conscious policy efforts may be needed to address such instances of regional decline.[16]

Better regional governance helps to attract foreign direct investment

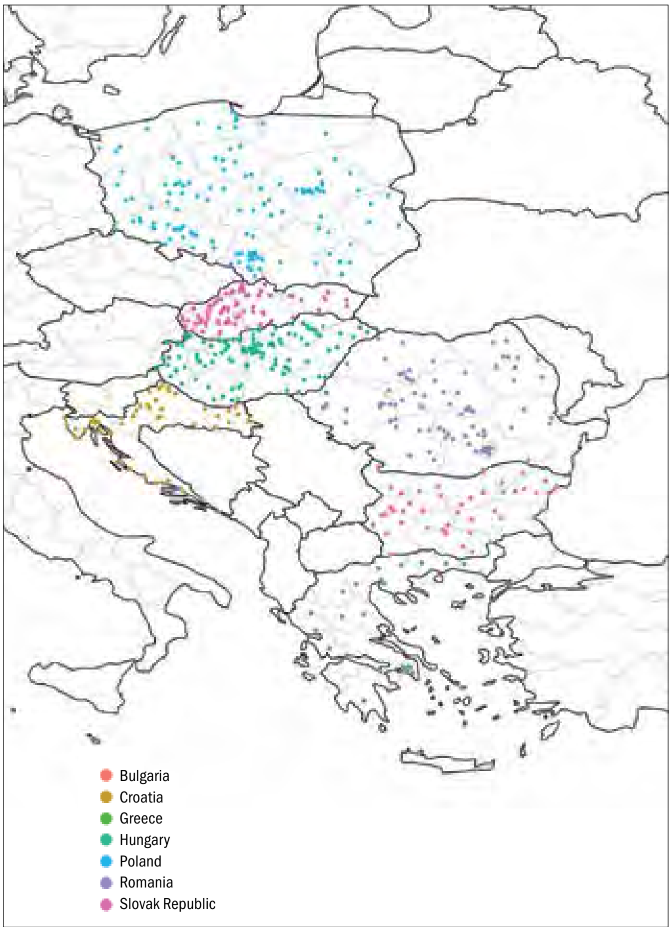
Like individuals, firms can also choose their place of residence. Domestic firms, for example, choose where to launch a start-up or expand. Indeed, Amazon turned the selection of the location for its second headquarters in the United States of America into a competition, with extensive coverage in the media. Similarly, foreign firms that are considering entering a new market may be undecided regarding the precise location of production.

This section uses project-level data on the location of greenfield FDI projects in seven economies in the EBRD regions for which EQI scores are available. Those data, which are taken from the Financial Times' fDi Intelligence database, are used to

[15] See, for instance, Bound and Holzer (2000), Diamond (2016), Greenwood (1975), Hornbeck and Moretti (2018), Long (1988), Malamud and Wozniak (2012), Notowidigdo (2013) and Wozniak (2010). See also Aksoy and Poutvaara (2019) on self-selection of refugees.
[16] See AfDB et al. (2019) for a discussion of this issue.

CHART 2.16.

Locations of greenfield FDI projects



Source: fDi Intelligence and authors' calculations.
Note: Based on the locations of the 500 most recent projects in Bulgaria, Croatia, Greece, Hungary, Poland, Romania and the Slovak Republic.

IF CONFIDENCE IN THE GOVERNMENT IMPROVED FROM THE LEVEL SEEN IN BULGARIA'S WORST-PERFORMING REGION TO THAT OF ITS BEST-PERFORMING REGION, THE PERCENTAGE OF PEOPLE WANTING TO EMIGRATE WOULD DECLINE BY

1

PERCENTAGE POINT

examine the impact that *regional* governance has on the location of FDI within countries, taking into account various characteristics of projects, as well as country-specific factors (as countries with higher-quality institutions have been shown to receive more FDI projects).[17] Chart 2.16 shows the locations of the 500 most recent projects in each of the seven countries (Bulgaria, Croatia, Greece, Hungary, Poland, Romania and the Slovak Republic). Each location is, in turn, mapped to a NUTS 2 region.

[17] For more on the impact that institutions have on FDI, see, for instance, Belgibayeva and Plekhanov (2019), Globerman and Shapiro (2002), Javorcik and Wei (2009) and Kinda (2010).

AROUND HALF
OF ALL GREENFIELD FDI PROJECTS IN EMERGING EUROPE RELATE TO RETAIL TRADE, TRANSPORT EQUIPMENT, INFORMATION AND COMMUNICATION TECHNOLOGY OR THE GENERATION OF ELECTRICITY

About half of all greenfield FDI projects in these countries relate to retail trade, transport equipment, information and communication technology or the generation of electricity. About a fifth originate in Germany, and the next largest source country is the United States of America (which accounts for 14 per cent of projects). A typical (median) project generates about 90 jobs, though the estimated impact on employment ranges from 4 to 3,000 jobs. Examples of recent projects include a new Lufthansa maintenance and servicing centre in north-eastern Hungary, a number of investment projects around Krakow and Katowice in Poland focusing on software development, and the expansion of car and car component factories in western areas of the Slovak Republic.

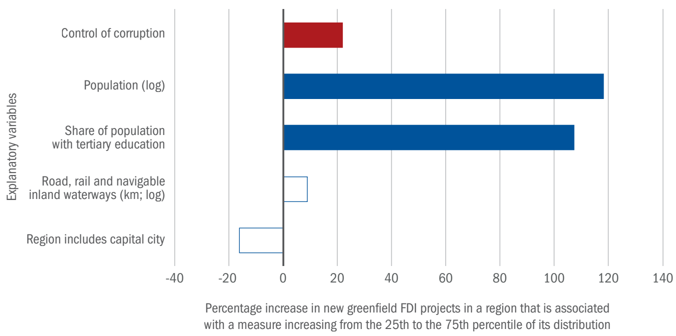
Regression analysis can be used to relate the logarithm of the number of projects in each NUTS 2 region (plus one) to the economic size of the region, its endowments in terms of human and physical capital (including measures of transport infrastructure), a dummy variable indicating whether the region contains the country's capital city, and country fixed effects. In order to mitigate reverse causality concerns (that is to say, concerns that FDI inflows may help to improve regional governance), measures of institutional quality derived from EQI data for 2010, 2013 and 2017 are used to predict FDI inflows in subsequent years. (For instance, the institutional quality that is measured in 2010 is used to predict the number of greenfield projects in the period 2011-13.) Given the limitations of relying on lagged variables to identify causal effects, we can also use alternative specifications to examine the links between regional governance and FDI locations, with former empires acting as instruments for regional governance. The results of that alternative analysis point to similar effects.

Improved regional governance has a large impact on a region's ability to attract FDI projects (see Chart 2.17). In Romania, for instance, differences in institutional quality between the south-east of the country (Romania's worst-performing region in terms of perceived control of corruption) and central Romania (its best-performing region) more than account for the difference observed in the numbers of FDI projects in those regions. In line with the large body of literature on the drivers of FDI, regions with a larger stock of human capital are also found to attract more greenfield FDI.

The quality of regional governance appears to matter more for projects with high levels of capital expenditure, where subsequent relocation may be more costly. In particular, regions with lower perceived corruption in business receive significantly larger amounts of total capital investment across greenfield FDI projects. This is consistent with the results reported in Box 1.7 in Chapter 1, where gross fixed capital formation was found to be the main driver of the growth dividend associated with improvements in the quality of economic institutions. The quality of governance is also more important for new projects than for the expansion of existing projects. The impact is most pronounced in the transport sector and is not statistically significant in the case of the retail sector.

CHART 2.17.

Regions with better governance attract more greenfield FDI projects



Source: Eurostat, fDi Intelligence and authors' calculations.
Note: Based on regression of the logarithm of the number of greenfield FDI projects (plus one) per NUTS 2 region in Bulgaria, Croatia, Greece, Hungary, Poland, Romania and the Slovak Republic on institutional quality (as derived from the European Quality of Government Survey), various regional characteristics and country fixed effects. Hollow bars denote effects that are not significant at the 5 per cent level. Standard errors are clustered at country level.

A TYPICAL GREENFIELD FDI PROJECT IN EMERGING EUROPE GENERATES
ABOUT 90 JOBS

Conclusion

The quality of governance varies significantly, not just across countries, but also within them, partly reflecting differences in the quality of public goods and services delivered by municipalities. Municipalities in the EBRD regions are typically responsible for waste collection, wastewater treatment, the water supply and pre-school education, as well as the provision of a range of other public goods and services. As the funding of these expenditure responsibilities tends to be fairly centralised, municipalities in the EBRD regions are more likely to regard financing as an obstacle to municipal investment than their counterparts in advanced European economies. Some variation in the quality of governance across regions stems from differences in the enforcement and implementation of nationwide regulations. In general, countries with lower levels of subnational spending and countries with weaker average governance tend to have larger intra-country disparities in the quality of governance.

Strikingly, intra-country disparities in terms of governance have been increasing in most countries, contrary to the hopeful view that good governance practices might gradually "trickle down" from pioneer regions to the rest of the country. Growing disparities across regions in terms of the perceived quality of governance could, in part, reflect increases in the devolution of expenditure responsibilities to lower levels of government, coupled with more limited decentralisation of funding. Other factors include rising income inequality across regions within countries and growing disparities between the fortunes of urban and rural areas (and even prosperous and struggling cities). In areas that are lagging behind, relatively poor governance, weak economic growth and outward migration by skilled residents can reinforce one another in a vicious circle.

While subnational differences in governance undoubtedly pose challenges, they also represent an opportunity – an opportunity to strengthen governance at the local level despite weaknesses in terms of country-level governance. The findings of this chapter suggest that improving regional or municipal governance could result in a large payoff in terms of regional growth (with that impact totalling 1 percentage point a year in per capita terms), which can be traced back to the performance of individual firms.

Superior governance at municipal and regional level is also associated with higher levels of individual well-being, in addition to any effect that this might have on income. Furthermore, competition for resources among regions creates strong incentives to strengthen governance at subnational level. Better-governed regions attract more (and larger) greenfield foreign investment projects, and individuals living in those regions are less likely to emigrate.

Various policies could help to improve governance at regional and municipal level, even in the absence of improvements to country-level institutions. Benchmarking the performance of regions and municipalities could both strengthen incentives to improve governance and provide opportunities to disseminate best practices more widely, thereby reducing red tape and increasing the transparency of the regulatory process. Case studies involving major improvements in municipal governance point to the importance of stakeholder participation in decision-making. At country level, such policies could be supported by fostering constructive inter-regional competition for investment, supporting coordination and ensuring that municipal-level investment projects with high economic rates of return are able to secure financing.

BOX 2.1.

MEASURING GOVERNANCE AT REGIONAL LEVEL

The analysis in this chapter is based on several different measures of governance at regional level – two survey-based measures of the governance perceptions and experiences of households, and a measure based on the perceptions and experiences of firms.

European Quality of Government Index

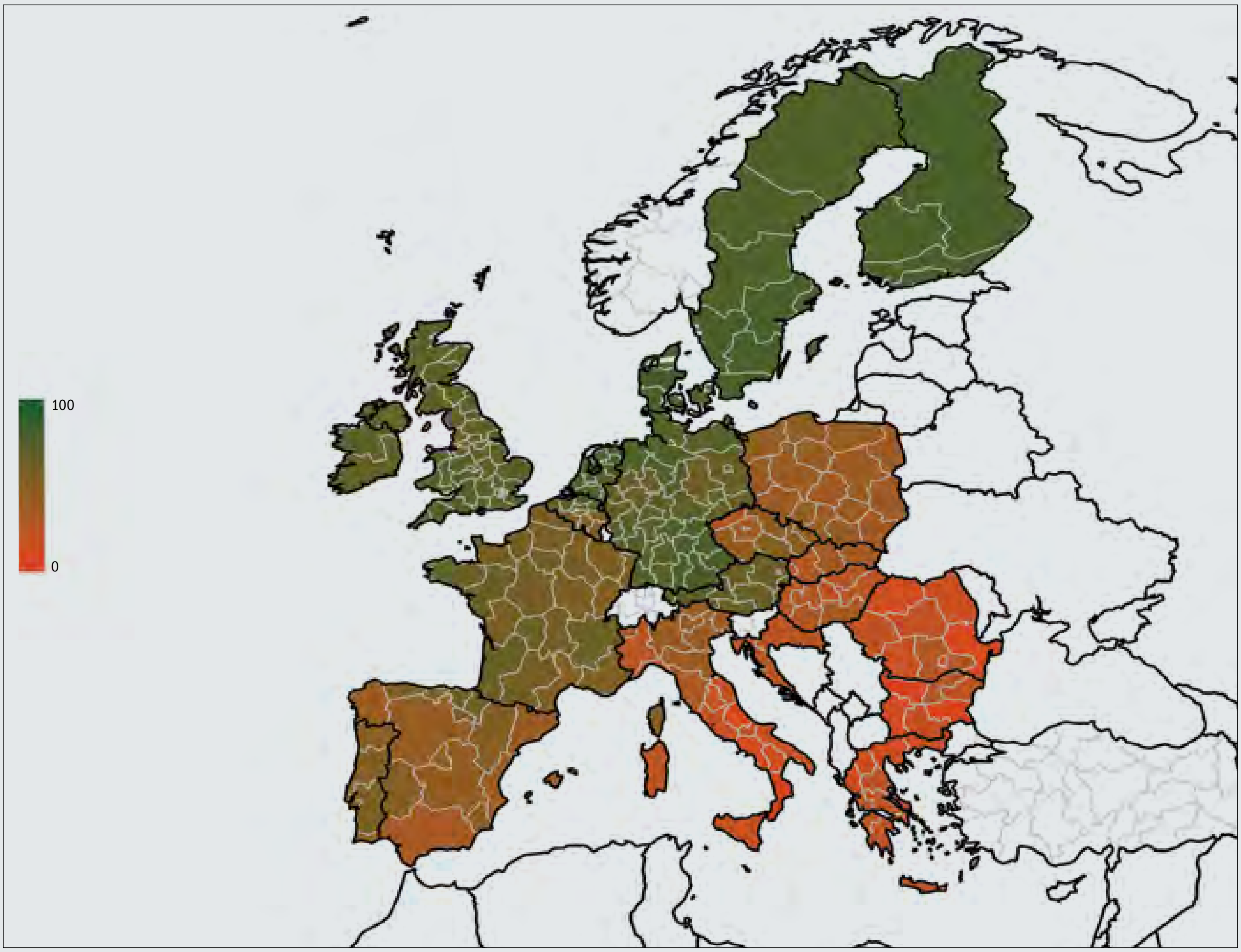
The European Quality of Government Index is based on surveys ascertaining the perceptions and experiences of individual residents and provides data at NUTS 2 region level for 7 economies in the EBRD regions and 14 European comparators for the years 2010, 2013 and 2017.

An overall index of institutional quality has been constructed on the basis of two subpillars measuring the quality and impartiality of public services and a third subpillar measuring perceptions and experiences of corruption. The "quality" subpillar has been established by aggregating respondents' assessments of the quality of public education, public healthcare and policing in the local area. The "impartiality" subpillar has been constructed by aggregating opinions as to whether certain people are given special advantages when it comes to public education, public healthcare and policing in the local area and whether all citizens are treated equally in the provision of such public services and in dealings with tax authorities.

Lastly, the "corruption" subpillar examines both perceptions and experiences of corruption. It takes account of respondents' views as

CHART 2.1.1.

Intra-country variation in EQI data for 2017



Source: European Quality of Government Survey and authors' calculations.

to whether corruption is prevalent in their local public school system, public healthcare system and police force. Respondents are also asked whether people in their area need to engage in some form of corruption simply to gain access to basic public services, whether corruption is used to obtain special unfair privileges and wealth, and whether the respondent or someone in their family has given (or been asked to give) an informal gift or bribe to a public official working in the area of education, healthcare or policing or any other service area in the last 12 months. Participants are also asked if elections in their area are free from corruption.

The index reveals high levels of intra-country heterogeneity as regards the overall measure of governance (see Chart 2.1.1). Higher values for the index, which has a scale of 0 to 100, correspond to superior governance.

Gallup World Polls

Gallup World Polls are used as an alternative measure of individuals' perceptions of corruption in business and government (see Chart 2.1.2) and their confidence in institutions such as the judicial system, courts and the national government. Households' locations are used to construct regional averages of governance perceptions on the basis of whether respondents have confidence in the judicial system, courts and the national government, and whether they believe that corruption is widespread within the government and in businesses located in their country.

CHART 2.1.2.

The percentage of individuals who believe that corruption is widespread within businesses varies from region to region within countries

Source: Gallup World Polls (2016 data) and authors' calculations.
Note: Some regional averages are missing, as descriptions of geographical locations were not specific enough to assign individuals to NUTS 2 regions.

BOX 2.2.

ESTIMATING THE SHARES OF VARIANCE THAT ARE EXPLAINED BY REGIONAL AND COUNTRY-LEVEL FACTORS

Variance decomposition can be used to disentangle the effect that national and regional characteristics have on confidence in institutions as expressed in Gallup World Polls and firms' perceptions of the business environment as reported in Enterprise Surveys. The analysis in this box is based on various approaches proposed by Gibbons et al. (2014).

Consider a regression model where a measure of governance as perceived by a firm or individual in a given region within a given country is explained by a set of country dummy variables, a set of region dummy variables (with a base region dropped in every country) and a number of characteristics of the firm (or individual) that may have an impact on perceptions of the business environment (such as the age of the firm, the sector in question or the gender of the most senior manager). This equation can be estimated using ordinary least squares.

The raw variance share

An upper-bound estimate of the percentage of variance that is explained by country-level effects is the R^2 in a regression of the governance indicator on the set of country dummies, with regional dummies omitted. When the residuals from this regression are regressed on the regional dummies, the R^2 yields, in turn, the raw variance share of the regional effects. If the regional, country-level and individual characteristics of the firm that are relevant for perceptions of the business environment are correlated, the raw variance share overestimates the amount of variance that is explained by the country-level (and regional) characteristics.

The uncorrelated variance share

The uncorrelated variance share is the percentage of variance that can only be explained by country level or regional characteristics. It is calculated as the difference between (i) the R^2 of a regression of perceptions of the business environment on country dummies and firm-level characteristics and (ii) the R^2 of a regression that only includes firm-level characteristics as covariates. This represents a lower-bound estimate of the percentage of variance that can be attributed to cross-country differences in economic institutions. As before, to obtain the regional variance share, the residuals from the first-stage regression are used.

The correlated variance share

A similar exercise can be performed by including various firm-level characteristics in the regressions above at both the first and second stages. The resulting estimates of the variance shares of country-level and regional effects are referred to as correlated variance shares. These are the values that are reported in this chapter. The results for the raw and unconditional variance shares are qualitatively similar.

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