South Caucasus in Motion

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Art

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Abbreviations and Acronyms

GDP	gross domestic product
HOI	human opportunity index
ICT	information and communication technology
OECD	Organisation for Economic Co-Operation and Development
PISA	Program for International Student Assessment (PISA)
SMEs	small and medium enterprises
STEM	science, technology, engineering, and mathematics

Executive Summary

The people of the South Caucasus aspire for their countries to become strong middle-class societies, and they are on track to make that aspiration a reality. Two decades of social and economic progress have changed the societies of Armenia, Azerbaijan, and Georgia. The notable improvements that people in the region have experienced are reflected in better living standards that allowed poverty to be reduced by half in the 12 years between 2005 and 2017. Yet, to consolidate middle-class societies, the governments of the South Caucasus need to do more to achieve the stability and resilience enjoyed by their more advanced peers in Europe and Central Asia. Sustainable economic growth, poverty reduction, and shared prosperity require that the full potential of all geographical and administrative areas, population groups, and economic sectors be realized.

This book analyzes spatial, social, and economic mobility in the South Caucasus. The book argues that Armenia, Azerbaijan, and Georgia have not yet integrated important geographical areas and population segments in full economic participation and social development. Economic gains have not been uniformly and equitably translated into greater welfare and opportunity among all households and individuals. The main conclusion is that sustainable growth, poverty reduction, and the consolidation of the middle class require that the institutional and physical foundations of greater and more equitable economic and social mobility be secured in the South Caucasus. Understanding and removing the constraints to the development of lagging districts; leveraging opportunities for agglomeration; linking geographical areas, peoples, and markets; fostering equality in access to better jobs; and making sure that high-quality education and basic services are available to all individuals and areas are crucial.

Mobility for all

Three dimensions of mobility are explored in this book. Economic mobility is defined as the opportunity for individuals to improve their economic and welfare status overtime. Social mobility enables individuals to change their welfare with respect to older generations, with independence from their initial circumstances. Lastly, spatial mobility allows households and economic agents to overcome spatial barriers, and to engage in economic and social interactions across geographic areas. Incorporating these components, mobility can be broadly defined as the opportunity to achieve a better future.

Social, economic, and spatial mobility represents societal and individual aspirations. They are also necessary if people are to participate in the development process. Economic and social mobility provide individuals with the possibility to use their talents and hard-work to improve their living standards relative to the past in their own lifetimes and to the conditions of their parents and grandparents. Spatial mobility facilitates interactions with other people and markets, hence allowing individuals to participate in trade, labor markets, migration, education and cultural opportunities, and so on.

Equity and efficiency in the allocation of resources and of economic gains require that mobility become disassociated from conditions that are beyond the control of individuals, such as, in the case of children, household income, parental educational attainment, family characteristics, and household

location. Mobility provides the opportunity for individuals to reach their fullest potential, regardless of social, cultural, economic, or geographical characteristics that can perpetuate unfair historical or intergenerational patterns. Mobility incentivizes the accumulation of human capital and other assets and fosters productivity and efficiency in the allocation of resources, thereby enlarging the overall welfare of society. Labor market mobility plays a fundamental role in enabling individuals to improve their lives through employment and productivity and in enabling countries to raise economic activity and social welfare.

Yet, mobility requires that distance and barriers among peoples, areas, and markets be overcome, ensuring that all individuals enjoy access to basic services and a good quality of life; providing all children with the inputs to learn and accumulate human capital, and helping workers join the labor force and access good jobs that match their skills and their talents. Mobility is a dynamic process. Neither households nor governments can be complacent. Households may overcome poverty, but must contend with the vulnerability of falling back into poverty. The middle class enjoys greater stability, but may be obliged to struggle to maintain its welfare against large shocks. Human capital must be regularly updated if workers are to retain skills that are relevant on labor markets. Adequate social mechanisms must be established to leverage and protect the hard-earned gains in the mobility of a population.

For the above reasons, mobility is fundamental to achieving poverty reduction and shared prosperity in the countries of the South Caucasus. This book analyzes the challenges involved in realizing social, economic, and spatial mobility in the South Caucasus and assesses policy options and a research agenda to tackle these challenges.

Substantial growth, unbalanced prosperity

Over the last two decades, the South Caucasus have overcome major challenges in consolidating their economies, societies, and institutions following the disintegration of the Soviet Union. The populations of the three countries in the South Caucasus have achieved robust social progress, a substantial middle class, and solid middle-income economies. After a difficult transition, efforts have paid off in economic performance and welfare indicators. Since the turn of the millennium, periods of substantial growth in Armenia, Azerbaijan, and Georgia have allowed important and often impressive reductions in poverty. Large segments of the population have climbed out of poverty and progressed up the development ladder into the middle class.

Progress has not been uniform or homogeneous, however. The countries of the South Caucasus are emerging economies, and large segments of the populations and many provinces and regions have remained stagnant.[1] Prosperity has not been balanced and has not reached all areas and population segments equally. Vulnerability is still a challenge. Many households have benefited temporarily from increases in income and then fallen back into poverty. Difficult geographical characteristics, the relatively small size of the economies, the lack of diversification, and demographic challenges associated with emigration and low fertility rates have combined with exposure to macroeconomic risks in the external environment to create serious problems. Efficiency in the allocation of economic

1 The first local administrative units in the three countries are as follows: Armenia: province; Azerbaijan: economic region; Georgia: region (plus one city and two autonomous republics).

resources and dynamism in economic sectors are therefore essential for sustainable growth, poverty reduction, and shared prosperity in the South Caucasus.

A mobility lens on the South Caucasus

This book explores poverty and inequality in the South Caucasus through the lens of mobility. It analyzes a variety of information sources, including household budget and perceptions surveys, administrative records on public services, international standardized test results, and even nighttime light emission data. Together, these research exercises provide a convincing body of evidence on the constraints on mobility.

While each country of the South Caucasus faces distinct challenges and policy priorities, common patterns in mobility emerge. A main conclusion of the book is that overall progress in poverty reduction and development outcomes have not been steady or homogeneous in the South Caucasus. A greater understanding is needed of the dynamics of poverty, vulnerability, and the transition to the middle class. The governments and people of Armenia, Azerbaijan, and Georgia would benefit from the integration of this mobility perspective to define the next generation of societal goals and the best policies for achieving them.

Spatial disparities and forgone opportunities

The book first analyzes spatial inequalities. Understanding and tackling the geographical constraints to mobility are fundamental to facilitating access to markets and interactions among peoples. The conclusion of the exercise is that the countries of the South Caucasus face large spatial variations in poverty, inequality, consumption, economic activity, and employment. Among the many geographical and demographic challenges, the spatial disparities are especially large and are hindering mobility.

The findings emphasize that the bulk of economic development in the three countries has occurred in the capital cities, Baku, Tbilisi, and Yerevan, which continue to be the centers of economic activity, demographic agglomeration, and market potential. However, the spatial disparities in welfare are large between the capital cities, rural areas, and secondary urban areas. The role of the secondary cities and the distribution of poverty vary across the countries, but, overall, poverty is a persisting problem in both urban and rural settings. Spatial disparities between leading and lagging provinces and regions are also evident in the access to quality education and basic services, employment opportunities, and sources of income. A key feature of spatial economic inequality is that, although economic concentration is usually associated with agglomeration and economies of scale, these phenomena are not necessarily equitable.

Though there has been progress, spatial inequalities still represent a drag on mobility in the South Caucasus. Combined with demographic pressures, they isolate large sectors of the population and can constrain the opportunities for urbanization and agglomeration. Combined with difficult topographic characteristics and poor connectivity, they are hindering the market potential of secondary urban centers. The diverging living standards linked with spatial inequalities in labor markets and public services inhibit the formation of economies of density and perpetuate historical, intergenerational

inequalities. Reducing the negative effects of spatial disparities along the three dimensions of economic geography—density, distance, and division—are therefore key to improving shared prosperity in the South Caucasus.

Economic mobility, churning, and vulnerability

The book also analyzes economic or intragenerational mobility to fathom the changes in income among individuals over their lifetime. Even during the periods of substantial economic growth over the last decade, churning—the upward and downward movements of households—was observed around the poverty line. Despite considerable poverty reduction, a significant share of the population fell below the poverty line or remained among the chronically poor in the three countries. Moreover, many of those who escaped poverty are still vulnerable to idiosyncratic and aggregate shocks and must struggle to consolidate their place in the middle class. Evidence has identified income-generating opportunities as the main correlate of the escape from poverty. In contrast, the chronically poor often live in geographical isolation and have few possibilities to access high-salary, high-productivity jobs. Social transfers have played an important role in increasing the welfare of the poor, but they cannot replace the incomes derived from robust employment creation and inclusive labor market institutions that allow individual talents and effort to be matched with the needs of industry.

Social mobility and the role of human capital

Social or intergenerational mobility may occur if people are not confined by their initial conditions, that is, if the welfare outcomes among individuals over the lifetime do not depend on the circumstances of these individuals at birth in terms of sex, geographical location, ethnicity, and so on. Welfare outcomes among individuals should be the result of their own efforts, preferences, and decisions, not the result of where the individuals were born or who their parents are. Social mobility is thus an indicator of social inclusiveness, for it qualifies the extent to which the opportunities for enhancing welfare are available to all members of society. The report analyzes social mobility in the South Caucasus by examining the extent to which educational attainment among individuals depends on the educational attainment of their parents.

The evidence shows that, rather than constant progress in education from one generation to the next, there is churning: some people are performing worse, while others are performing better than their parents. Despite the high coverage rates of the educational systems in the South Caucasus, it is not certain that new generations are accumulating higher-quality education. Progress in improving human capital is not guaranteed in the South Caucasus. This area must therefore be the focus of special attention.

Inequality of opportunity in the job market

Given the importance of labor incomes to overcome poverty in the South Caucasus, the report analyzes the inequality of opportunities in labor markets. The main conclusion is that access to high-quality ("good") jobs is limited, and variations in access are largely determined by factors that are beyond

the control of individuals, indicating that there is substantial inequality of opportunities in the South Caucasus.

The analysis defines good jobs as jobs that meet three criteria: the work is more than 20 hours a week; it is salaried work through a contract; and it offers some measure of tenure. These criteria represent an attempt to approximate permanent full-time formal jobs. By applying an adapted human opportunity index (HOI) framework, the study finds that the influence of "unfair" factors in the search for a good job varies across countries and job profiles. Nonetheless, gender, ethnicity, and parental political affiliation account for large portions of the inequality of opportunity. The fair components of inequality (educational attainment and work experience) are relevant, but relatively less significant. These results are a motive for concern about mobility in the South Caucasus because people appear to be restricted in their use of their efforts, choices, and skills in finding employment and increasing incomes. This can lead to the misallocation of resources and reduce aggregate productivity at the macrolevel.

Inputs for human capital accumulation: the role of basic services and infrastructure

Educational attainment and human capital more broadly are traditionally thought of as fair components of access to labor markets. However, the inputs necessary for the accumulation of human capital may also be unfairly distributed. For this reason, the report explores inequalities in access to education and basic public services—running water and sanitation—among children. Coverage rates of schooling and basic public services are generally high in the South Caucasus. However, learning performance tends to be poor, unequal, and dependent on the socioeconomic circumstances and geographical location of the children. Most inequalities in the provision of public services arise from spatial disparities that are specific to urban or rural areas or to administrative or geographical areas. In sum, unfair access to education and basic services in the earlier, formative stages of life can perpetuate inequalities of opportunity in the accumulation of human capital, access to labor markets, and economic leverage later in life.

A mismatch between perceptions and indicators

Another important finding is the potential role of inequality of opportunities, rather than inequality of outcomes, in influencing people's perceptions of mobility and their preferences for relevant policies. A substantial and increasing share of the population in the South Caucasus perceives that inequality is widening and standards of living are falling, especially relative to pretransition conditions. However, this perception does not necessarily reflect the image based on data measurements. Such attitudes may instead result from considerable churning in social and economic mobility. Likewise, perceptions of the importance of political connections in obtaining good jobs may relate to dissatisfaction with the inequality of opportunities in labor markets.

Looking to the future: an agenda for mobility

The results of the analysis indicate that policy options need to be considered to tackle the constraints on social, economic, and spatial mobility in the South Caucasus. Although the policy options should accord with the national context, the three countries share certain features.

First, the findings on spatial inequalities highlight the need to investigate structural bottlenecks outside capital cities. Understanding and targeting the obstacles to economic activity and urbanization in secondary cities and the sources of the productivity differentials between leading and lagging regions and provinces may be a valuable exercise. The results also show that the effort to tackle the spatial disparities in the South Caucasus should address the problems of population density, the lack of connectivity, and variations in living standards across regions and provinces and urban and rural areas. Improving transport connections and the provision of basic services can help raise economic activity, market potential, and people's ability to participate in regional development, while restraining further demographic deconcentration and narrowing inequalities.

Social and economic mobility require a skilled, productive population that has access to good jobs. The findings of the report provide some guidelines for improving the functioning of labor markets and the accumulation of human capital. This includes the recommendation that additional research be conducted and policy strategies be developed on the underlying causes of gender barriers and other barriers in access to labor markets to allow the three countries to tackle unequal treatment of certain groups and improve economic participation. Increasing the supply of good jobs will also require the development of a stronger, more dynamic private sector. This means the binding constraints on business growth and formality, including regulation, access to credit markets, and other sectors in regions and provinces and nationally will have to be identified and removed. To improve the distribution of resources and talent in the economy, workers will need to acquire skills relevant to labor demand. The three countries could benefit from implementing mechanisms to enhance the matching of skills and available jobs.

Second, the need to develop human capital in the South Caucasus is a fundamental theme of this book. The inability of individuals to accumulate human capital is an important component of the inequality of opportunity in the South Caucasus. Learning outcomes and skills need to be improved by ensuring effective access and equity in two key enablers: high-quality education and the supply of other basic inputs. Establishing mechanisms to evaluate and monitor learning outcomes, the skills sharpened in schools, and access to basic services such as sanitation and water will be crucial in this task. Incorporating a spatial lens and improving local, disaggregated data collection will also be necessary.

Third, the findings of this book support the need to lock in the gains in mobility and to consolidate the economic stability of the middle class. Large shares of the population are vulnerable to falling back into poverty. There are a variety of reasons for this, including the limited access to permanent, formal jobs and the reliance on incomes from low-productivity agriculture. Greater equality of opportunity in labor markets and human capital accumulation and increased productivity and economic diversification would likely eventually reduce the vulnerability to poverty. In the short term, policies to improve household resilience to adverse shocks and income fluctuations might include expanding targeted social assistance and pension systems for the vulnerable and improving access to financial markets.

Setting the South Caucasus in motion

The countries of the South Caucasus have overcome major economic and social obstacles in recent decades. There has been much progress in reducing poverty and establishing a middle-class society. The three countries differ in many respects, but they also face similar challenges in achieving the twin goals of reducing poverty and boosting shared prosperity. These challenges include demographic pressures and the need to increase resilience to external shocks, to become more well integrated in world markets, and to lock in hard-earned welfare improvements.

Armenia, Azerbaijan, and Georgia would benefit if the governments are able to incorporate spatial, economic, and social mobility issues more closely in the policy agenda. Strategies to eliminate disparities in economic opportunities across regions and provinces; link the resolution of problems in spatial inequality and resilience to efforts in poverty reduction; enhance connectivity and agglomeration; expand the supply of formal, high-productivity jobs; tackle the unfair components of inequality in the access to labor markets and to basic human capital inputs; and lock in the hard-earned gains against risks would help the people of Armenia, Azerbaijan, and Georgia to leverage the progress in economic growth and poverty reduction, consolidate and expand the middle class, and ensure that the benefits of mobility are shared by all.

Introduction

Introduction

The populations of the South Caucasus have witnessed significant change since the collapse of the Soviet Union. Like people in other transition economies, the people of Armenia, Azerbaijan, and Georgia faced the formidable challenge of building new markets, institutions, and societies to replace the centrally planned state (World Bank 1996). The initial years of transition saw a sharp loss of output. Gross domestic product (GDP) per capita registered annual reductions ranging from 8 percent to 15 percent. This was accompanied by a loss of productivity, reductions in capital, sharply increased unemployment rates, foundering institutions, and shrinking industry (Campos and Coricelli 2002). In some countries, the economic distress contributed to reduced life expectancy (World Bank 1996). Eventually, the populations of the three countries in the region experienced better times. From the turn of the millennium to the global financial crisis in 2008–09, the three economies showed double-digit growth rates, and per capita GDP reached above preindependence levels (World Bank 2015a, 2017a, 2018a).

The development pathways adopted by each government were significantly different. The government of Georgia launched far-reaching reforms in governance and economic policy following the Rose Revolution in 2003, building up Georgia's reputation as one of the most market-friendly of the post-Soviet states (World Bank 2018a). Growth in Azerbaijan was mainly driven by natural resources, first, by the foreign investment required to establish oil infrastructure and, then, by the production and export of oil and by public expenditure mainly on infrastructure and construction. The fall in oil prices after the global financial crisis caused growth to stagnate (World Bank 2015a). In Armenia, reforms and growth before the financial crisis went hand in hand. However, growth was fueled mainly by robust external inflows from mining, remittances, and foreign investment from the Russian Federation. These sources shrank sharply after the financial crisis, leading to a reduction in growth (World Bank 2017a).

The transition also created new difficulties in translating economic growth into welfare expansion among the population and the reduction of poverty and inequality. As the productive side of the economy was being transformed, major reforms were needed in public services, such as infrastructure, water, sanitation, and power; social protection systems, including poverty reduction mechanisms, financial access, employment access, labor market protections, and pensions; and systems to build human capital, such as education and health care (World Bank 1996). Beginning in the early 1990s, the government of Armenia implemented land reform, price liberalization, and enterprise privatization. Economic stabilization by the mid-1990s helped in the implementation of reforms in education, health care, and social protection. After a slowdown in the late 1990s, reforms undertaken beginning in 2000 focused on promoting investment and further opening the economy. Regulatory reforms in public utilities and the banking sector contributed to efficiency gains. And efforts to consolidate public financial management were accompanied by ambitious social service reforms (World Bank 2009a).

Following large output declines and hyperinflation after independence in 1991, Azerbaijan's economy recovered after 1995, partly because of a wide-ranging reform program supported by the World Bank and the International Monetary Fund and the signing of the production sharing agreements with foreign oil companies in 1994. In 1999, the State Oil Fund was established and assigned stabilization and savings functions (World Bank 2002). In Georgia, after the government implemented macroeconomic reforms

and price liberalization policies, the economy stabilized in the mid-1990s and started to show signs of recovery, although it faced downward pressures again at the end of the decade. Revenue collection improved, but progress in other areas was spotty. Reforms included the privatization of small and large enterprises, the establishment of the legal framework for financial services, and reforming the judicial system and the health care system. In 2000, the government launched a strategy to confront a growing crisis of corruption, but with limited success. Corruption and the poor provision of public services persisted. Education reforms instituted beginning in 2001 focused on improving teaching methods and training, implementing new curricula, and supporting greater school autonomy (World Bank 2009c, 2012a).

Over the last decade, the performance of the countries has been quite varied. Georgia exhibited a high, though stable poverty rate, at more than 30 percent, until 2010. Thereafter, the rate was reduced by over 15 percentage points. The bottom 40 percent of the income distribution (the bottom 40) experienced higher-than-average growth in consumption between 2006 and 2015 (World Bank 2018a). In contrast, Armenia showed good progress in poverty reduction before 2009. Poverty headcounts fell by half, from 54.0 percent in 2004 to 27.6 percent in 2008. However, this indicator stagnated after 2009 (World Bank 2017a). In Azerbaijan, while poverty declined significantly in both rural and urban areas (by 10.8 percent and 8.5 percent, respectively), important spatial disparities existed. The poverty rate in rural areas was nearly twice that in urban areas, and poverty varied widely across the country's economic regions; some economic regions experienced higher poverty rates (World Bank 2015a).

The countries of the South Caucasus now face new challenges in the effort to achieve the twin goals of reducing poverty and boosting shared prosperity and to meet the aspirations of the emerging middle class. The challenges in Armenia include reorienting the development model to seize export opportunities, boosting productivity, creating jobs, tackling connectivity constraints, and damping the demographic pressures exerted by the shrinking population (World Bank 2017a). In Azerbaijan, the steadily expanding population has enjoyed substantial oil-driven economic growth, but the lack of economic diversification, limited urbanization, and the large disparities across the economic regions are straining the resilience to external shocks. Improved macroeconomic and fiscal management and institutional strengthening appear to be necessary for sustainable growth (World Bank 2015a, 2015b). In Georgia, the main challenge involves adjusting and refining the growth paradigm and translating relatively well-performing economic growth to more rapid, sustainable poverty reductions. Raising labor productivity, integration with the global economy, and invigorating stagnant rural areas will be fundamental to reaching this goal (World Bank 2018b).

In the three countries of the South Caucasus, creating inclusive, sustainable prosperity for all is a shared challenge. Despite improvements in poverty and other welfare indicators, large sectors of the population are living in areas characterized by stagnant development. Prosperity has been unbalanced and has not reached all peoples or all regions and provinces. Many households have temporarily benefited from income rises, only to fall back into poverty. It is not always clear that today's youth are attaining a better education than their parents did a generation ago. Many sectors of the population remain geographically excluded from opportunities to work, trade, and become integrated in the benefits of development. In a context of many demographic challenges and less favorable external conditions, consolidating a strong middle class will require new, more diversified sources of growth, increasing access to better, more productive jobs, and finding ways to lock in and leverage past gains.

This book contributes to an understanding of the challenges to ensuring that the benefits of prosperity are shared by all in the South Caucasus. It focuses on three dimensions of mobility: spatial, social, and economic mobility. It examines in detail the equitable access to opportunities in the South Caucasus and uses microdata analysis and a variety of sources to identify possible constraints to shared prosperity within the dimensions of mobility in the South Caucasus.

While mobility can be analyzed from multiple dimensions, this book focuses on the social, economic and spatial aspects of mobility that can provide the people of the South Caucasus access to the opportunity to achieve a better future. The literature interprets mobility within and across generations in several ways (Narayan 2018). Adapting the classifications of Ferreira and Gignoux (2013) and Fields (2000), economic or intragenerational mobility is defined as changes—relative or absolute—in the income of individuals' over time. Social or intergenerational mobility is understood as the possibility of individuals to improve their welfare with respect to the welfare of their parents, and with independence from the individual's circumstances at birth (Tiwari et al 2018). Spatial mobility allows households and economic agents to engage in economic and social interactions, regardless of their geographic position.[2]

By adopting various lenses on mobility, this book seeks to understand and consider mobility in the South Caucasus as a means to supporting all individuals in becoming integrated in and fully benefiting from economic development. From an equity and fairness perspective, mobility provides the opportunity to individuals to reach their fullest potential, regardless of social, cultural, economic, or geographical characteristics. Hence, mobility is closely linked to the notion of equality of opportunity. While inequality is often measured in outcomes—for example, consumption or income inequality—the degree of fairness in a society reflects the process of reaching those outcomes (Bussolo et al. 2018). Equality of opportunity requires that characteristics that are beyond the control of individuals do not condition their welfare outcomes later on in life. For example, a fair society should allow individuals to find a job fitting their talents and efforts, without the need to possess favorable connections, to belong to a certain ethnic group, or to overcome gender gaps in the labor market. From an economics perspective, mobility can enlarge the overall welfare of a society by fostering the accumulation of human capital and other productive assets, by fostering productivity, and by reducing the misallocation of resources caused by inequality of opportunities. If talent is randomly available across a population, failure to ensure that talented individuals in lower-income households or isolated geographical regions enjoy the equal opportunity to attain high-quality education, to join good quality jobs, and to reach their full potential results in an overall loss for society.

Rapid economic growth and reductions in poverty rates constitute substantial achievements of the countries of the South Caucasus over the last decades. However, national averages and static measures of welfare can mask important disparities that may emerge across space and time, thereby ignoring the struggles and the needs of different geographical regions and population groups to leverage their potential and participate in the benefits of development. The volatile upward and downward shifts in poverty reduction and educational attainment in the South Caucasus represent a warning that appropriate policies to establish vigorous social and economic mobility have not been identified. The assessment of economic and social mobility enables to understand whether poverty reductions reflect gradual and sustainable improvements in the living standards of the population, or more

2 The first local administrative units in the three countries are as follows: Armenia: province; Azerbaijan: economic region; Georgia: region (plus one city and two autonomous republics).

volatile and costly movements of households in and out of poverty (Tiwari et al. 2018). In a context of difficult topographic characteristics, poor connectivity and demographic challenges—including a shrinking population and migration outflows—generate spatial disparities that constrain the economic participation of large sectors of the population in the South Caucasus. Understanding and tackling the constraints to spatial mobility increases the possibility for interactions with other people, regions, and markets.

Sustained growth, poverty reduction, and shared prosperity require the translation of economic gains into welfare improvements among all communities, households, and individuals. While boosting the middle class entails providing equality of opportunity to fulfill growing social and economic expectations. Mobility is thus a fundamental requirement for strengthening the middle class and achieving poverty reduction and shared prosperity—the twin goals—in the South Caucasus. Investigating and leveraging the enablers of spatial, social, and economic mobility, such as access to education and basic services, improved connectivity among lagging regions, and agglomeration opportunities—can help share prosperity among all the people of the South Caucasus.

This book aims to contribute to the knowledge and discussions on mobility in the three countries of the South Caucasus. The regional scope is a major contribution of this book. The three countries share history. Although national contexts, development strategies, and policy priorities may differ, they also share many economic and sociodemographic challenges, including the need to maximize productivity among workers, consolidate the integration with global markets, increase the resilience of the economy and of households, and reduce social and economic dualism. The regional approach seeks to shed light on these shared challenges, while reconsidering specific national strategies on the next steps to be taken.

The regional approach is not intended as a comparative exercise. While this report examines common themes across the three countries, it does not draw major conclusions from cross-country comparisons. National contexts differentiate Armenia, Azerbaijan, and Georgia, and this should inform any assessment or policy recommendation. Geopolitical and socioeconomic relationships among the three countries are beyond the scope of this exercise. Instead, this book aims to enrich the findings of previous country studies by enabling a more fine-grained understanding of the way in which mobility affects poverty and inequality. Rather than a comprehensive diagnostic and policy agenda, the book provides a fresh look to complement existing knowledge—like that provided in the Systematic Country Diagnostics of the World Bank—through the lens of mobility.

As a first approach to understanding mobility in the South Caucasus, chapter 1 focuses on spatial inequalities. It describes an array of channels along which spatial disparities influence mobility, and it assesses variations in poverty, inequality, consumption, economic activity, and employment across geographical and administrative areas. Reflecting an awareness of the current knowledge gaps and data limitations across subnational areas, the chapter provides in-depth descriptive analyses. Relying on a variety of indicators and sources, it presents evidence on spatial dynamics as a possible constraint to mobility in the South Caucasus. The chapter concludes that large spatial variations in poverty, inequality, and development across the regions and provinces of the South Caucasus negatively affect mobility and shared prosperity. The findings emphasize that economic development has been mainly led by capital cities, while economic activity, concentration, and market potential lag in other urban and rural areas. Poverty in the South Caucasus is both urban and rural, though its distribution varies

across countries. Regional and provincial disparities are also evident in the access to basic services, patterns of consumption, and labor markets. In a context of numerous geographical and demographic challenges, spatial disparities and poor connectivity are reducing the opportunities for agglomeration and contributing to the isolation of large segments of the population. Hence, the three countries underutilize important resources for economic development and maintain unfair access to economic and social opportunities across spatial divides. Reducing the negative effects of the spatial disparities over the three dimensions of economic geography—density, distance, and division—will be key to improving shared prosperity in the South Caucasus.

Chapter 2 focuses on the dynamics of social and economic mobility in the region. It is partly motivated by the substantial and increasing share of the population in the South Caucasus that perceives that inequality is rising and standards of living are falling. Such perceptions contrast with conclusions drawn from data-based indicators and measurements. The focus on economic mobility enables a more precise understanding of the dynamics of poverty in the region. Economic or intragenerational mobility refers to changes in the income of individuals (Ferreira and Gignoux 2013; Fields 2000). Hence, the chapter assesses the movements of households in and out of poverty. Despite considerable poverty reduction, a significant share of the population fell back below the poverty line or remained in chronic poverty in the three countries. The chapter identifies and explores the characteristics of households based on poverty and welfare status, including chronically poor households, vulnerable households, and middle-class households. It draws lessons from the characteristics of households that managed to escape poverty and remain out of poverty and the contrast between these households and households that are chronically poor.

Social or intergenerational mobility indicates independence from initial conditions. Thus, for example, it requires that the circumstances at birth of individuals be uncorrelated with welfare outcomes in the lifetimes of these individuals. Chapter 2 analyzes social mobility in the South Caucasus by focusing on educational attainment across generations. The methodology includes an assessment of the degree of association between the educational attainment of adults and the educational attainment of their parents in the South Caucasus and a sample of countries in Europe and Central Asia. The results indicate that progress in educational attainment from one generation to the next has not been guaranteed in the South Causes. Similar to the case in economic mobility, social mobility in the countries of the South Caucasus shows both upward and downward shifts, indicating constraints on the mobility needed by households to overcome poverty so that the next generations inherit greater welfare.

To investigate the inability of some people in the South Caucasus to take advantage of better employment and income opportunities, chapter 3 analyzes inequalities of opportunity in Armenia, Azerbaijan, and Georgia through an emphasis on access to labor markets. First, perceptions of inequality among the population are analyzed. Second, the factors that contribute to the prevailing inequality in access to good jobs are assessed. Good jobs are those that meet three criteria, as follows: (1) the job involves more than 20 hours of work a week; (2) the job provides salaried work through a contract; and (3) the job is associated with some measure of tenure. The analysis adapts the human opportunity index (HOI) framework of Barros et al. (2009, 2010) to identify the influence of fair and unfair factors in the access to good jobs. Unfair factors, such as gender, ethnicity, and parental political affiliation, account for large shares of the inequality of opportunities across the countries. Fair components of inequality, such as education and work experience, are less significant.

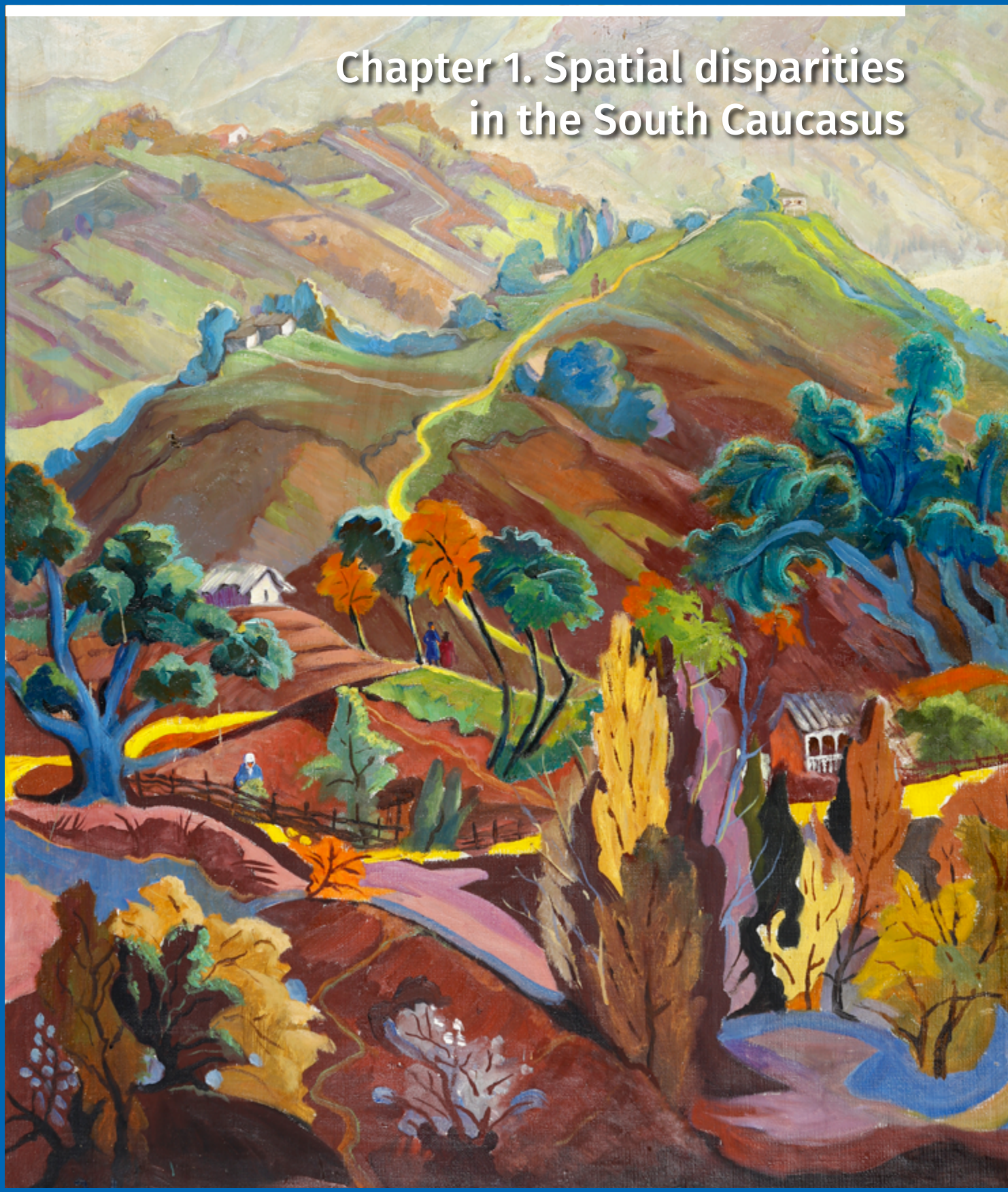
The chapter also describes more in-depth research on the issue of human capital. Educational attainment and other elements of human capital are typically considered fair components of the access to labor markets. However, the inputs necessary to accumulate human capital may also be unfairly distributed. The chapter explores inequalities in access to education and basic public services (running water and sanitation) among children ages 16 or younger. Despite the high coverage rates of schooling and basic public services in the South Caucasus, learning performance tends to be poor, unequal, and dependent on the socioeconomic circumstances and geographical location of the children. Inequality of opportunity seems to be a binding constraint on mobility in the South Caucasus. The unfair distribution of good jobs and of the basic inputs of human capital accumulation unfairly prevent individuals from taking advantage of opportunities in labor markets. Inequality of opportunity, rather than inequality in outcomes, is also likely linked to people's perceptions of welfare in the South Caucasus.

Chapter 4 starts with a review of the key conclusions of the analysis on spatial, economic, and social mobility. Realizing mobility in the South Caucasus requires that distance and other barriers between people, locations, and markets be overcome, thereby ensuring that all individuals enjoy access to basic services and a good quality of life, providing all children with the inputs they need to learn and accumulate human capital, and helping workers join the labor force and gain access to good jobs that match their skills and their talents. The chapter adapts the policy framework from *World Development Report 2009* to identify relevant policy instruments to address the barriers to mobility in each country, including: (a) horizontal policies that promote mobility across the economy and society; (b) hard and soft infrastructure that connects peoples, geographical and administrative areas, and markets; and (c) interventions that target and provide incentives to specific areas and sectors of the population (World Bank 2009b).

Reflecting a recognition that each country faces particular challenges to mobility and general policy making, the findings of the report are assessed in view of the findings of other research carried out by the World Bank, in consultation with local authorities, organizations, and experts. The chapter then maps the lessons from the detailed mobility analysis in chapters 1–3 and other research results into relevant, practical policy recommendations to foster mobility in each country of the South Caucasus. Rather than a comprehensive policy agenda, the goal is to bring the lens of mobility to bear to enrich national public policy debates and research agendas. The recommendations cover issues in human capital formation, labor markets, social protection, private sector growth, urbanization, local and subnational development, connectivity, basic services, and data collection for monitoring and evaluation.

The countries of the South Caucasus have overcome major economic and social obstacles over the last decades, with important achievements in poverty reduction. Large segments of the population moved up the development ladder, often by overcoming poverty and becoming part of an expanding middle class. This book attempts to deepen the understanding of the barriers to the full realization of this phenomenon in the countries of the South Caucasus and to suggest ways in which these barriers may be reduced or eliminated.

Chapter 1. Spatial disparities in the South Caucasus



Chapter 1. Spatial disparities in the South Caucasus

Main findings[4]

- Since the collapse of the Soviet Union, the countries of the South Caucasus have achieved important progress in poverty reduction and economic growth. However, the benefits have not been equally shared in every part of these countries.
- A clear division between capital cities, secondary urban centers, and rural or hinterland areas is evident. As a result, growth within countries has not been equal.
- In each country, the concentration of economic activity and the bulk of economic development has been led by capital cities. However, the patterns of spatial disparities and the role of secondary cities vary in each country.
- In general, poverty persists in both urban and rural settings.
- Geographical isolation and lack of connectivity, demographic dynamics (including migration and population growth), and regional disparities in access to basic services and to higher-productivity formal employment are contributing to social inequalities and hinder opportunities for economic prosperity from emerging.
- Despite some common patterns across the South Caucasus, the three countries differ in the causes, levels, and consequences of the spatial inequalities.

Introduction

The analysis of the multiple challenges facing Armenia, Azerbaijan, and Georgia, the countries of the South Caucasus, requires a spatial lens. These countries have relatively small populations and are located in a geographically difficult mountainous region distant from world markets. This has been called a three-dimensional predicament (World Bank 2009b). In Armenia and Georgia, the small populations are shrinking because of emigration. As more and more people outside the capital cities move, economic activity and population tend to become concentrated in the capitals (World Bank 2017a, 2018a). Azerbaijan has enjoyed growth driven by oil production and a steadily expanding population. However, most growth is occurring in Baku, the capital. The oil-dependent growth has been slowing, and other industries, infrastructure, and services across other regions of Azerbaijan remain weak (World Bank 2015a). These spatial issues are exacerbated by the geopolitics of the region, which complicate cooperation within the region and with neighboring countries.

3 This chapter is based on Fuchs (2019).

Large and persistent spatial disparities have long been recognized as problems in most countries undergoing the process of economic development or structural transformation (Williamson 1965). Spatial disparities are a policy concern because they indicate that regions and provinces and the people who live in them are unable to participate adequately in and benefit from the development process. In addition, spatial disparities may reflect and produce persistent inequalities. If certain groups or locations cannot influence policy making or the allocation of resources, the unequal bargaining power could result in fewer resources flowing their way, leading to the deeper entrenchment of inequality (Esteban and Ray 2006).

One role of policy is to promote and facilitate efficient economic activity irrespective of location, while focusing on minimizing inequalities in welfare. As countries grow, internal regions and provinces diverge. Industrialization becomes concentrated in limited areas (Williamson 1965). Economic concentration reduces infrastructure costs and other inputs and increases opportunities for workers and firms by improving knowledge sharing and learning spillovers. The anticipation is that the initial divergence in living standards across locations eventually reverses. As a country develops, location continues to matter in economic production, but it does not matter so much in living standards, leading to an expectation of convergence (World Bank 2009b). However, widening gaps between prosperous areas and areas left behind could lead to a continuation of the diverging living standards (World Bank 2009b). A role of policy is to ensure that living standards converge despite the divergence in economic activity.

Spatial differences in economic activity may arise because of natural advantages and disadvantages and then increase because of institutions or historical persistence. Once economic concentration reaches a certain threshold, forces of agglomeration begin fostering concentration, while the forces of dispersion tend to weaken the concentration. Forces of agglomeration may emerge because of increasing returns to scale within firms or because of external forces (Henderson, Shalizi, and Venables 2001). For instance, firms may learn from other firms in the same location or benefit from a supply of skilled labor (Fujita, Krugman, and Venables 1999). In contrast, forces of dispersion inhibit economic density. On the supply side, this could involve a rising cost of living, congestion costs, or higher costs of immobile factors, such as land or a geographically dispersed demand for output (Henderson, Shalizi, and Venables 2001). Deconcentration becomes efficient as development advances, as the economy becomes able to support the expansion of economic and infrastructure knowledge, and as congestion makes way for efficiency in consumption and production (Ades and Glaeser 1995).

Voluntary labor migration between economically leading and lagging areas boosts economic growth and convergence. Moving to economically denser areas boosts the earnings of migrants and their households through remittances. It also strengthens the effects of agglomeration and of economic integration between sending and receiving areas, leading to convergence in the long run (World Bank 2009b). Empirically, this pattern may be observed in both developed countries in the past and developing countries today. However, because of push factors, such as the lack of basic services or deteriorating environmental conditions, migration may not have the anticipated beneficial effects (World Bank 2009b).

Public services are important in ensuring spatial equity. Basic education, health care, and water and sanitation services contribute directly to human well-being. All citizens should have equal access to these services. Public services are more likely to be concentrated in areas with greater

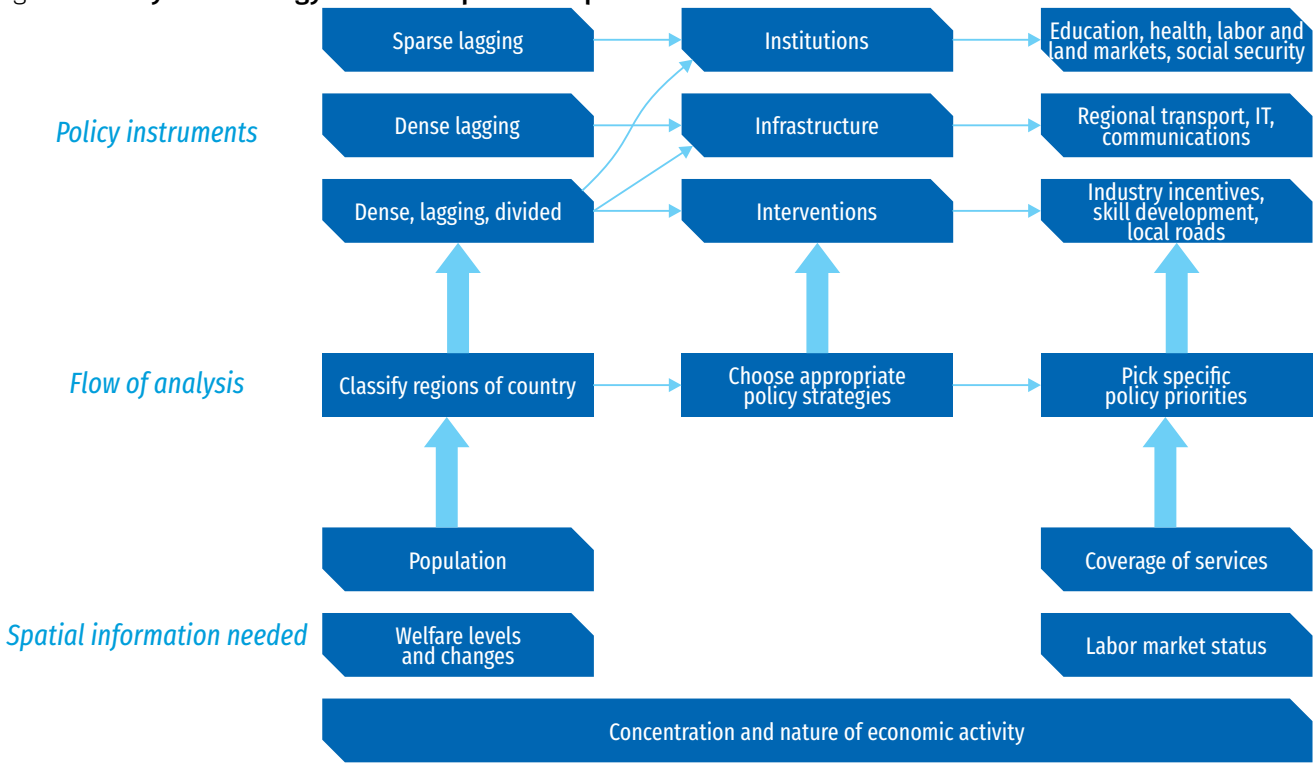
economic activity (World Bank 2009b). The uniform provision of public services can aid in reducing push migration away from areas. Well-designed transfer programs such as pensions can redistribute income to households that are unconnected from economic growth without hindering migration or growth (World Bank 2009b).

Growth in countries and cities is driven by promoting transformations along the three dimensions of economic geography: density, distance, and division. The higher densities are seen in the growth of cities; distances become shorter as workers and businesses migrate closer to areas of greater density; and divisions become fewer as countries thin their economic borders and enter world markets to take advantage of scale and specialization. The three dimensions transform the available space for convergence in living standards, and this can lead to equal opportunities regardless of location (World Bank 2009b).

Methodology

The analytical strategy of this chapter is laid out in figure 1. First, the within-country spatial distribution of population is examined. Next, the spatial distribution of household welfare and poverty, the related time trends or changes over time, and the structure of economic activity are assessed. This enables a classification of regions and provinces as sparse, dense, leading, or lagging, which leads to a choice of policy strategy. This framework draws heavily on *World Development Report 2009* (World Bank 2009b).

Figure 1. **Analytical strategy to assess spatial inequalities**



Source: Based on World Bank 2009b.

The choice of relevant policy instruments depends on a proper understanding of the coverage of basic services and the spatial variations in the labor market and draws upon the nature of economic activity. Because of clear and distinctive characteristics, capital cities, urban areas other than the capital, and rural areas are analyzed. In addition, metrics at the subnational level are compared to identify disparities in well-being and policy gaps in the effort to determine the best ways to narrow the disparity in living standards between lagging and leading regions.

To measure household welfare, the chapter relies chiefly on household consumption expenditure. The Armenia Integrated Living Conditions Survey of 2010–16 and the Georgia Integrated Household Survey of 2010–16 are used in the case of Armenia and Georgia. In Azerbaijan, because of data limitations, the analysis is a snapshot based on the 2015 Azerbaijan Monitoring Survey of Social Welfare,[4] which is complemented by aggregate data of the State Statistical Committee.

Leading and lagging regions and provinces in each country are identified based on four measures: (1) mean aggregate consumption, (2) the regional or provincial gross domestic product (GDP) per capita, (3) the international poverty rate, and (4) the regional or provincial Gini coefficient. The two regions or provinces at the extremes are selected for the sake of a proper sample size.

For data on firms and economic structure, nighttime light emissions are relied on as a proxy in an analysis of the spatial dispersion of economic activity and productivity.[5] Based on the methodology used by the World Bank (2018a), market potential is determined by the access a city possesses to a network of other cities. The market potential of a city is the ratio between the sum of the populations of all other cities in the country relative to the sum of the travel times to those other cities from the reference city. Therefore, a high market potential could mean closeness to one or more large cities, while low market potential would suggest greater distance from large cities. The chapter also analyzes labor markets by wages, sources of household income, and the nature and status of employment in various subnational regions and provinces.

Armenia

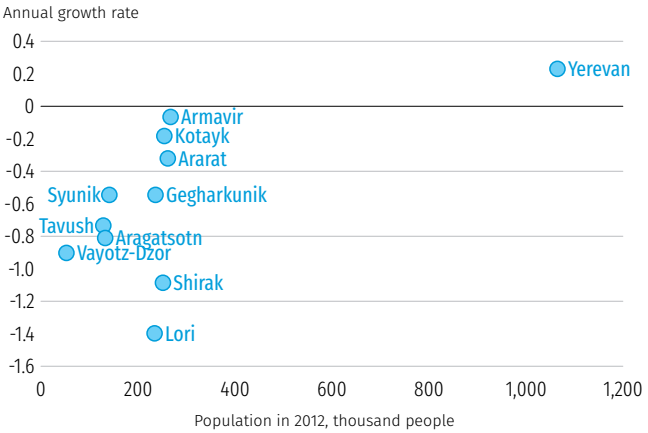
Population

There is no obvious pattern in population size and population growth rates in Armenia (figure 2). However, population concentration seems to be increasing in the capital, though at a rate close to zero.

4 Only the eastern parts of three rayons (districts) in Yukhari-Karabakh were included in the 2015 Azerbaijan Monitoring Survey of Social Welfare, namely, Agdam, Fizuli, and Tartar.

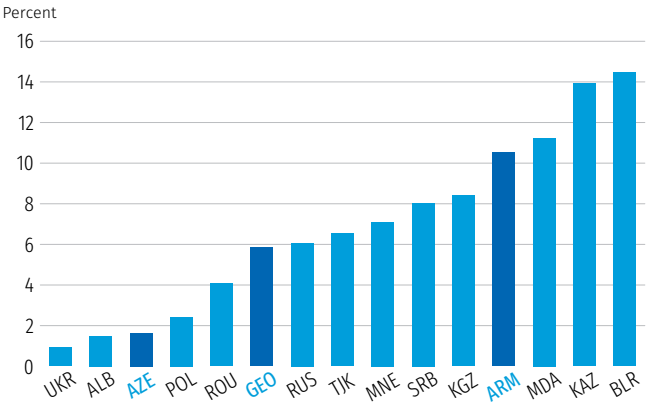
5 Annual nighttime light emission data produced by the Defense Meteorological Satellite Program in 1992–2013 are used as a proxy for output production. Because of the lack of reliable data on subnational economic activity, there is a growing body of literature that uses nighttime luminosity as a proxy for output production. For instance, see the seminal paper of Henderson, Storeygard, and Weil (2012) and the recent World Bank report on cities in Europe and Central Asia (Restrepo Cadavid et al. 2017), which use these data to support an analysis of population changes.

Figure 2. **Population growth, Armenia, 2012–15**



Source: World Bank calculations based on data of the Statistical Committee of the Republic of Armenia.

Figure 3. **Theil index of income inequality, first local administrative units, by country, Europe and Central Asia**



Source: World Bank calculations based on household per capita income.

Income and consumption

In 2012–15, Armenia's GDP per capita grew at an average annual rate of 3 percent. This was higher than the rate in most countries in Europe and Central Asia, though not as high as the growth in Georgia. For comparison, the GDP per capita growth rate was slightly higher in Armenia than in Estonia or Greece.

Although Armenia is among the countries with the highest household consumption inequality in Europe and Central Asia, the evidence on spatial inequality is mixed. Measured by the Gini coefficient of per capita GDP across the country's provinces, spatial inequality is only modestly higher in Armenia than in other countries in Europe and Central Asia. However, if it is measured by per capita household income, slightly over 10 percent of Armenia's inequality in 2015 can be attributed to disparities between provinces, which is at the higher end among Europe and Central Asian countries (figure 3), up from about 4 percent in 2005. This suggests that inequality across the provinces of Armenia is a growing problem, though the bulk of inequality is seen in variations in household incomes within particular provinces.

Yerevan shows much higher consumption than other parts of the country. Rural areas exhibit lower consumption than urban areas as a whole, but higher consumption than urban areas outside Yerevan, highlighting the difference between Yerevan and other (secondary) cities in the country (figure 4). Similarly, one may compare per capita consumption in lagging and leading provinces, defined in four ways (figure 5). In all these definitions, less than a third of the differences in per capita consumption across provinces can be attributed to differences in household characteristics, suggesting there are large structural differences in the economies of the various provinces.

Figure 4. **Decomposition of consumption differences between urban, rural, and capital areas, Armenia**

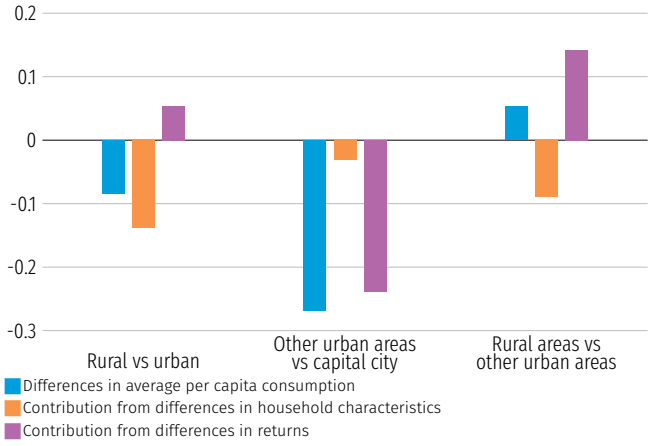
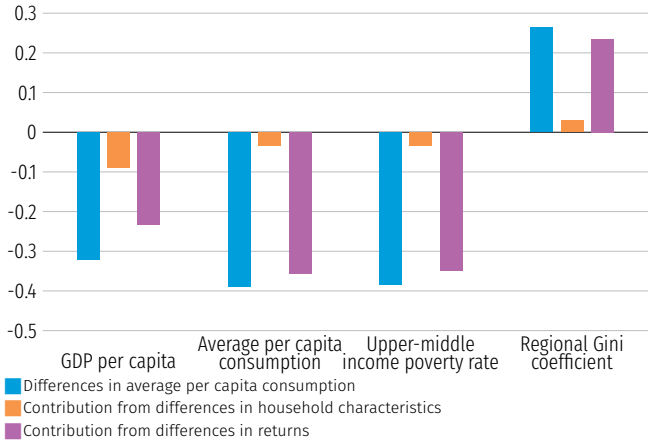


Figure 5. **Decomposition of consumption differences between leading and lagging provinces, Armenia**

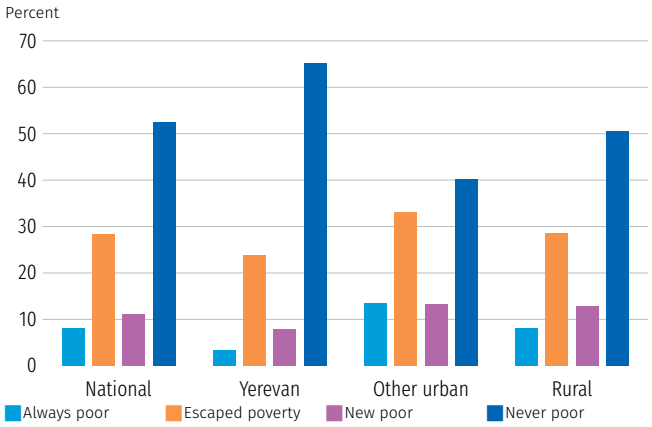


Source: World Bank calculations. Based on differences in per capita consumption.
Note: Based on a Oaxaca-Blinder decomposition to estimate the relative contribution to differences in consumption from: (a) the household characteristics (endowments and human capital), and (b) the returns to those household characteristics. See Skoufias and Olivieri (2013) for methodological details.

Poverty

Provincial poverty rates were converging between 2010 and 2016, mainly driven by higher economic growth in secondary cities relative to rural areas and Yerevan. Nonetheless, poverty rates are still higher in secondary cities than in rural areas and Yerevan (figure 6). Poverty in Armenia is a dynamic phenomenon. For every three people who moved out of poverty in 2010–16, one fell back into poverty; fewer than 10 percent of the poor remained poor. In the same period, nearly a third of the population in secondary cities escaped poverty, larger than the corresponding shares in Yerevan and rural areas. However, secondary cities also had the largest share of nonpoor who fell into poverty (13 percent) and the lowest share of people who remained nonpoor; indeed, they were the areas with the highest poverty rates initially.

Figure 6. **Poverty transitions, Armenia, 2010–16**



Source: World Bank calculations.

In 2016, the poverty rate was higher in northern Armenia, home to the second and third most important cities (map 1). However, because of the higher density in Yerevan, the largest number of poor Armenians live there (figure 7). Shirak and Lori provinces exhibited the highest poverty rates, 45.5 percent and 35.7 percent, respectively, followed closely by Kotayk and Tavush provinces, at 35.4 percent and 33.8 percent.[6] This mirrors differences in the composition of the economy and

6 None of these provincial differences are statistically significant. Yet, in combination with other indicators (macro, labor), it is reasonable to assume that ranking the provinces makes sense.

highlights the limited employment and wage growth in the manufacturing and service sectors in urban areas outside Yerevan.

Map 1. **Poverty map, Armenia, 2016**

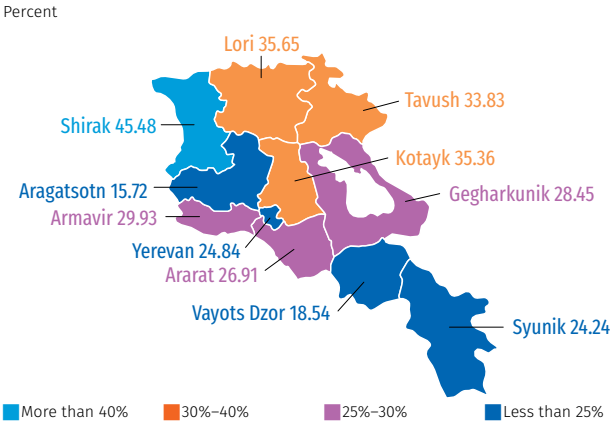
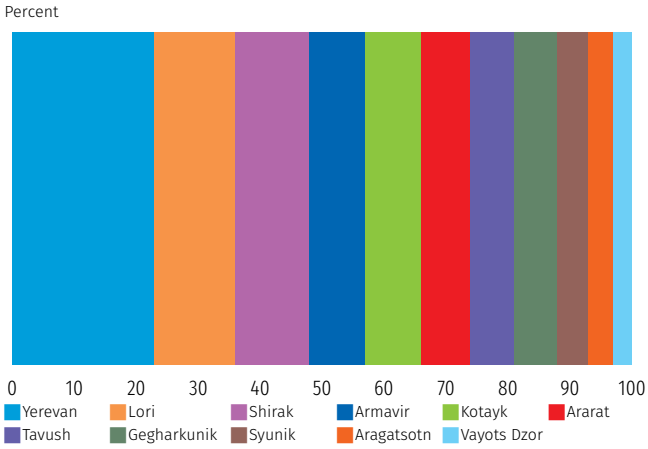


Figure 7. **Absolute poverty, by province, Armenia, 2016**



Source: World Bank calculations.

In general, poverty reduction was driven by rising average consumption, but was held back by the uneven distribution of consumption growth.[7] Two key exceptions were Aragatsotn Province, where changes in the distribution of consumption reduced poverty headcounts, and Tavush Province, where the average consumption declined, and the distribution worsened, resulting in higher poverty rates.

These welfare dynamics reflect the creation of jobs in the high-productivity service sector, while jobs were being lost in construction, benefiting well-off households, but reducing the growth potential of poorer households. In rural areas where the agricultural sector has grown, most households participate in a production process that is uniform, benefiting poorer and richer households alike. Because the provinces of Armenia are following different development trajectories, the divergence may persist. Inclusive growth in Armenia depends on access to opportunities among all individuals.

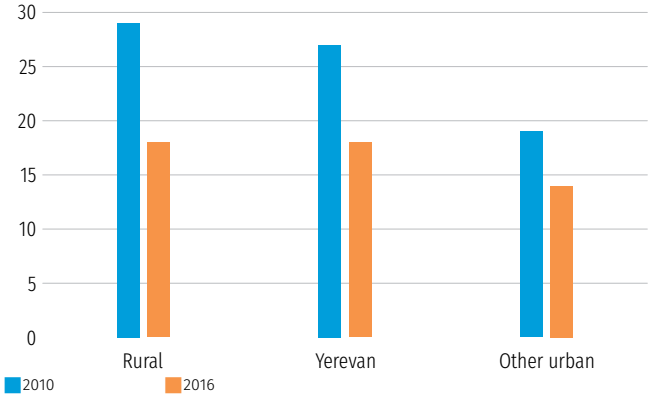
Spatial differences in services

Spatial differences in public services reflect not only the welfare situation of rich and poor households, but also differences in access and functionality (World Bank 2009b). Across Armenia, over one household in every seven lacks access to adequate housing, despite improvements (figure 8, panel a). Overcrowding remains the main challenge among over 40 percent of households in Yerevan and other cities. In contrast, other services are generally worse in rural areas because of difficult topography, low density, and greater distance (map 2). Most rural households lack healthy sources of heating, and this indicator has been deteriorating there over the years (figure 8, panel b). In addition, fewer household members in the poorer north of Armenia have completed high school. This could be caused by lower access to education or the more well educated may be migrating away from these areas.

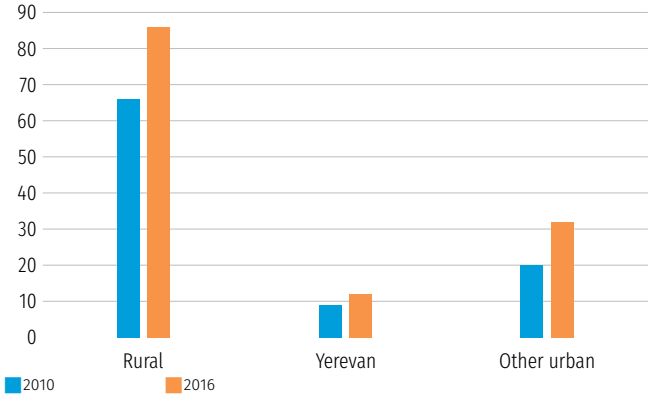
7 Conceptually, a poverty measure can change because of a change in either average incomes or income distribution. A Datt-Ravallion (1992) decomposition attempts to quantify the contribution of growth or redistribution to poverty changes. For more details, see Fuchs (2019).

Figure 8. **Spatial disparities in housing conditions and access to public services, Armenia**

a. No access to adequate housing conditions

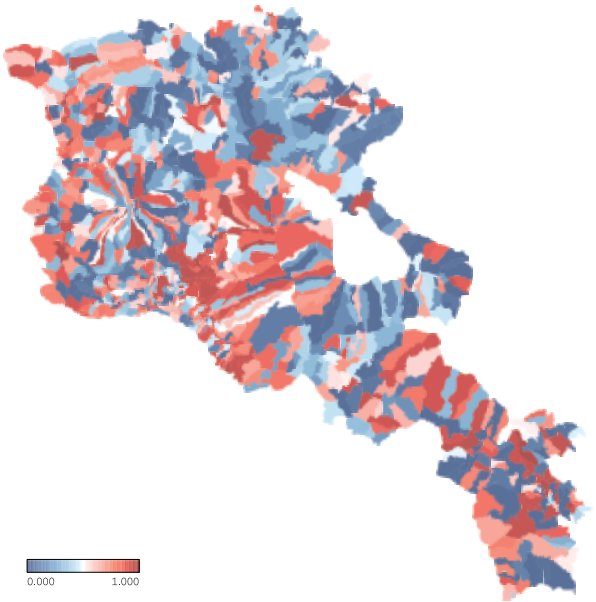


b. No access to healthy heating (gas or electricity)

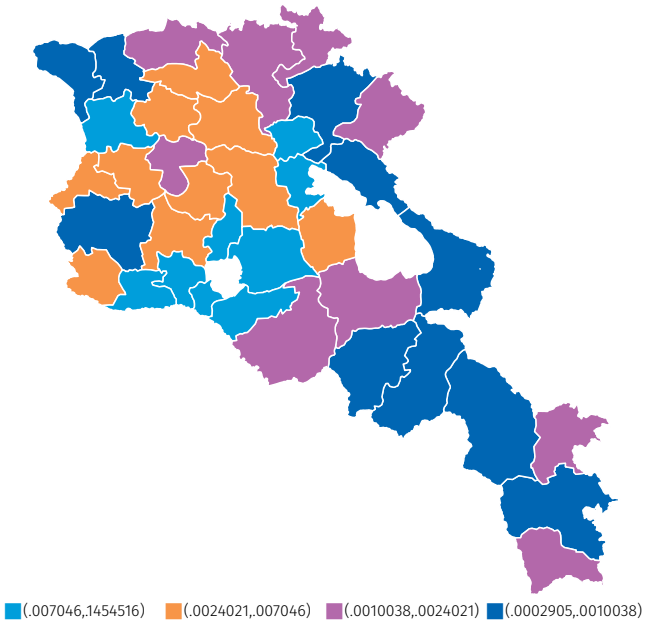


Source: World Bank calculations based on the Armenia Census 2011, National Statistical Service of the Republic of Armenia.

Map 2. **Percentage of households with tap water as main source of water, Armenia**



Map 3. **Lights/km², Armenia, 2013**



Source: World Bank calculations based on the Armenia Census 2011, National Statistical Service of the Republic of Armenia.

Pensions are more important in urban areas other than Yerevan relative to Yerevan and rural areas. The greater coverage of the Family Benefit Program, the primary social assistance program, helped poor and vulnerable households. However, the limited budget also restrained the impact on poverty, and public transfers accounted for less than 10 percent of household income.

Work and economic activity

Armenia shows a high degree of spatial inequality in economic activity as measured by nighttime light intensity. Economic activity is more intense close to Yerevan, and less intense in regions farther afield (map 3). The second largest city of Armenia, Gyumri in Shirak Province, and an area in the north

of Gegharkunik Province are the other spots on the map with high luminosity. Most poor people live in these bright zones, while the southeast has less brightness, but also lower poverty rates. Relying on an analysis of light intensity per capita as a measure of productivity, the most productive areas would be the southwest of Armenia, and the least productive would be the eastern border areas. Nonprimary sectors, such as manufacturing and finance, are concentrated in Yerevan and in various hamaynkner (communities, the second local administrative units). Agriculture is more ubiquitous, but weakly correlated with poverty, given that there are areas with high poverty rates and areas with low poverty rates that are both dependent on agriculture.

Yerevan is by far the city with the largest market potential.[8] Gyumri and Vagharshapat in Armavir Province, the fourth-largest city, follow at a large distance (table 1). Yerevan also has the highest number of firms in the country. The low market potential in cities outside Yerevan may be an issue for firms because of the economic distance from consumers (map 4). However, there is not an evident winning city that hosts the biggest firms.

Table 1. **Market potential of cities, Armenia**

City	*Market potential*
Yerevan	226.4
Gyumri	9.7
Vagharshapat	9.1
Abovyan	7.3
Vanadzor	7.1
Hrazdan	5.7
Armavir	3.7
Artashat	2.9
Gavar	1.9
Kapan	1.0

Source: World Bank calculations.

Map 4. **Roads and market potential, Armenia**

Employment

Between 2010 and 2016, the proportion of hired employees increased in all areas, but most notably in Yerevan. The proportion of self-employed individuals also rose, especially in rural areas. The proportion of the unemployed declined, particularly in cities other than Yerevan. Employment is less secure in rural areas, largely because of the dominance of agriculture. Of the rural workforce, 70 percent is self-employed or work as unpaid family workers. The poor are more likely to be self-employed or work as unpaid family workers, as well as to have access to only temporary work and lower wages. This raises the vulnerability of these households. The urban workforce is more likely to have wage employment,

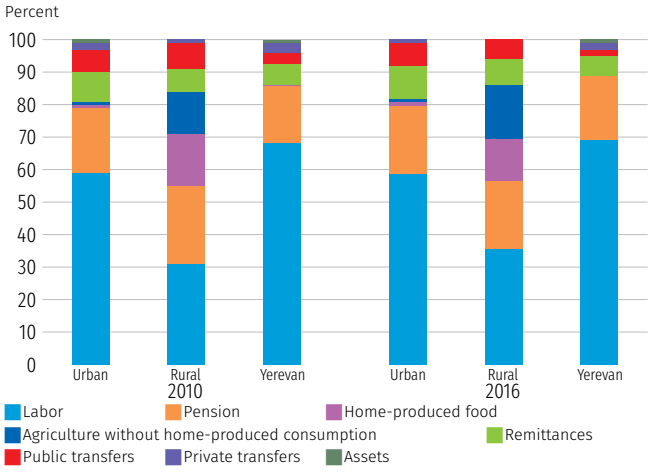
8 Calculated as the ratio between the sum of the population of all other cities in the country relative to the sum of travel time to those other cities from the reference city.

but are vulnerable because only some of the poor (42 percent) and nonpoor (53 percent) have written contracts.

Rising employment and wages in Aragatsotn, Ararat, Kotayk, and Syunik are a result of growing agricultural incomes in rural areas, caused both by expanding agricultural sales and greater economic activity in manufacturing and services in urban areas.[9] In rural areas, income from agricultural sales, self-consumption, and labor in agriculture accounts for around 30 percent of average household income.

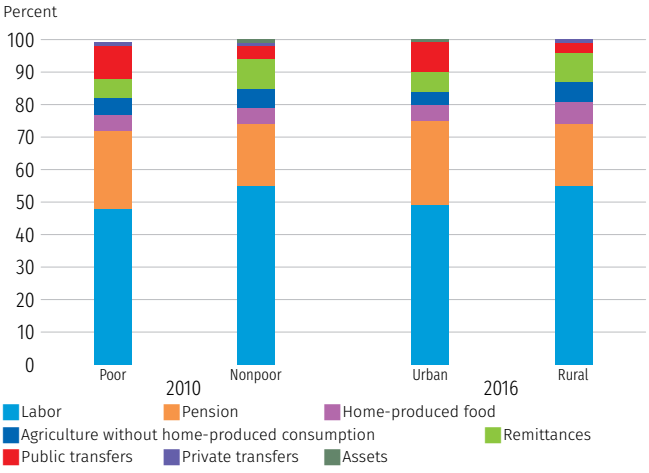
Between 2010 and 2016, income growth was broadbased, even as every area experienced shifts in the structure of the economy and employment (figure 9). In Yerevan, construction jobs were lost, and new jobs in industry and services only partly compensated for the loss. Public transfers as an income source decreased in Yerevan, while remittances gained ground, and the home production of food declined in rural areas. This suggests that the greater productivity in agriculture freed up rural workers, who are now searching for new jobs. The lack of job opportunities in their home locations leads them to migrate, mainly to Yerevan and outside Armenia. An intermediate sector in other cities might boost economic growth and relieve pressures on the labor market and infrastructure in Yerevan.

Figure 9. **Income sources in Yerevan, other urban areas, and rural areas, Armenia, 2010 and 2016**



Source: World Bank calculations.

Figure 10. **Income, by welfare status, Armenia, 2010 and 2016**



Income sources were also different among poor households and nonpoor households. Labor earnings and remittances were more significant for nonpoor households in 2010 and 2016, remaining stable at 55 percent and 9 percent, respectively (figure 10). The contribution of labor earnings to poor households was lower, close to 50 percent in both years. Poor households were more reliant on pensions and public transfers, relative to nonpoor households. Those sources of income represented around one quarter and one tenth, respectively, of the income of poor Armenian households.

9 Agriculture represented 20 percent of Armenia's GDP and 35 percent of its employment in 2015. Agricultural exports rose dramatically, from US$81.6 million in 2004 to US$389.0 million in 2015. Over 70 percent of exports and most growth are driven by beverages and tobacco products, which do not draw significantly on the agricultural resource base. Foreign direct investment in agriculture averaged US$44 million over 2008–15, representing over 60 percent of the investment in beverages and a third in crop and livestock production (World Bank 2017a, 2018c).

While the national average wage grew annually at 8.2 percent between 2010 and 2015, there were sharp regional differences: mean annual wages in Aragatsotn were US$7,127, compared with Tavush, at US$4,621. In general, northern and poorer parts of Armenia have significantly lower wages than central and richer provinces. Controlling for education and age reveals that Aragatsotn earns 11 percent to 20 percent more than Yerevan, while Armavir and Shirak earn 14 percent and 20 percent less, respectively.

Summing up: main findings on Armenia thus far

In the last few years, the population has been declining in sparsely populated rural regions and increasing in Yerevan. The bulk of economic activity and the core of economic transformation is mainly in Yerevan, although there is some diversification of economic activity in other cities. However, household per capita consumption is lower in cities other than Yerevan relative to rural areas, and there is some evidence that these cities have economies quite different from that of Yerevan. Similarly, even though cities other than Yerevan saw a higher share of people falling back into poverty, they also experienced a higher share moving out of poverty; so poverty, vulnerability, and the dynamics of labor seem to be more volatile in secondary cities.

Agriculture is contributing to poverty reduction in some places. Wages are lower in the north than in Yerevan, but higher in agriculturally booming Aragatsotn. Conversely, service quality as a proxy of living standards is mixed: nearly a third of households report dissatisfaction with housing across the board; heating is dramatically worse in rural areas; and tap water is not widely available in many communities, especially in the north. Remittances are an important part of the economy, and social transfers are relatively minor, but pensions represent a quarter of income for poor household.

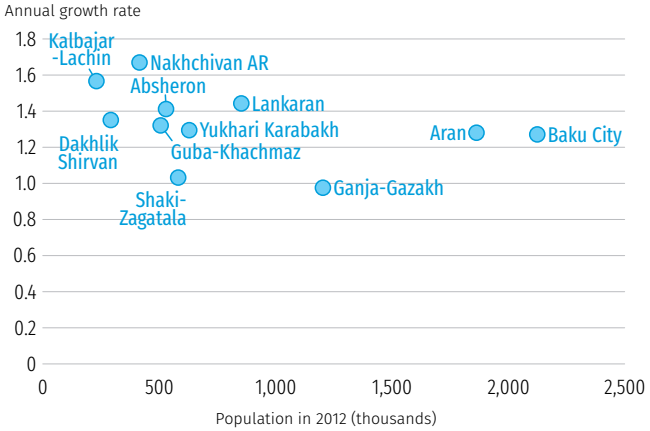
Azerbaijan

Azerbaijan is home to 9.6 million people across 10 economic regions; 53.1 percent of the population resides in urban areas.[10] It is the only country in the South Caucasus that has seen an increase in population both in aggregate and across regions. The average growth rate was 1.3 percent between 2010 and 2015 (figure 11).

The level of urbanization in Azerbaijan has been consistently low despite the rapid economic growth (figure 12). Absheron and Baku are predominantly urban, while most other economic regions are mainly rural. Historically, urbanization is strongly associated with economic growth and is necessary for reaching middle-income status (World Bank 2009b). The slow rate of urbanization in Azerbaijan is largely caused by the economy's high dependency on natural resources, similar to the experience of other countries that rely on exports of natural resources.

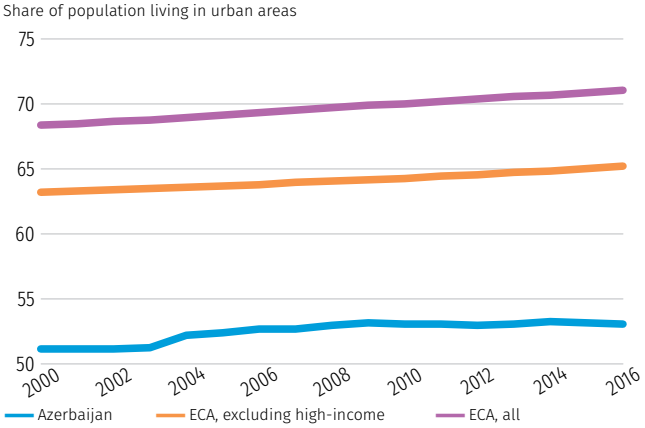
10 Estimates reported by the State Statistical Committee for 2015 (as of June 2018). The 10 economic regions include the Nakhchivan Autonomous Republic.

Figure 11. **Population growth, Azerbaijan, 2012–15**



Source: World Bank calculations based on data of the State Statistical Committee.

Figure 12. **Urbanization, Azerbaijan, 2018**

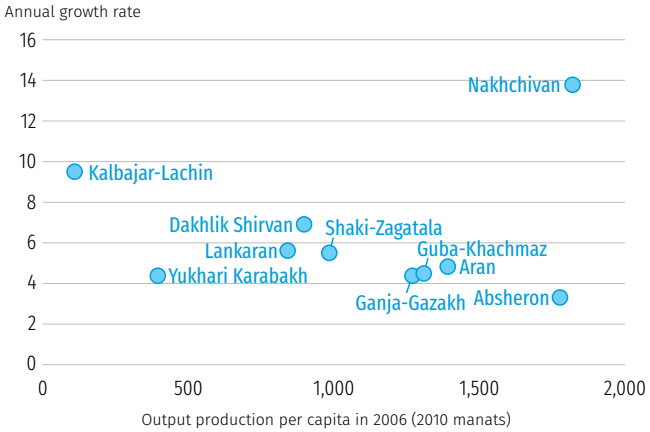


Sources: Azerbaijan: State Statistical Committee. Europe and Central Asian averages: WDI (World Development Indicators) (database), World Bank, Washington, DC, http://data.worldbank.org/products/wdi.

Growth and inequality

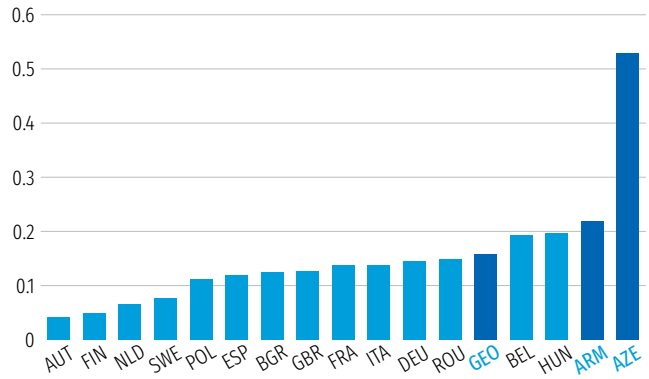
Azerbaijan's GDP grew at an annual average of 11 percent in 2000–15 (World Bank 2016a).[11] This impressive growth was accompanied by poverty reduction through higher social transfers and a dramatic rise in real wages, but the welfare gaps across regions have not completely narrowed.[12] Average annual growth rates of real GDP per capita fall within the range of 3 percent in Absheron, one of the richest economic regions, to above 10 percent in Kalbajar-Lachin and Nakhchivan, the regions with the second-lowest and the second-highest GDP per capita in 2006 (figure 13). Thus, there is no evidence of convergence in regional GDP per capita. This also suggests that there has not been a locational shift among industries, reflected partly in the slow pace of urbanization.

Figure 13. **Output growth, Azerbaijan, 2006–15**



Source: State Statistical Committee of the Republic of Azerbaijan, as of June 2018.
Note: Baku (not shown) had exceptionally high per capita output production, at manat 7,116 in 2006 (2010 prices).

Figure 14. **Gini coefficient of GDP per capita, first local administrative units, by country, Europe and Central Asia**



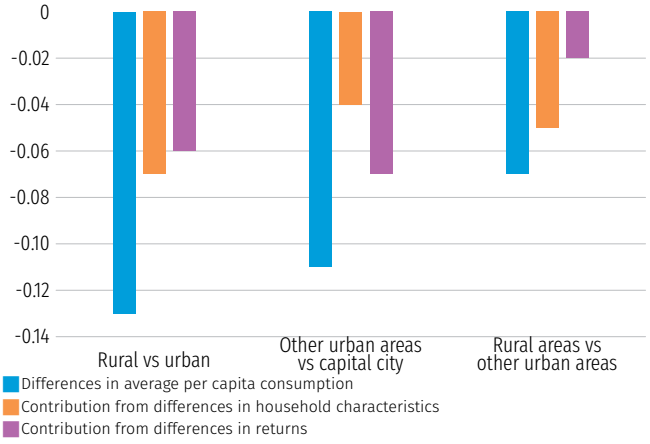
Source: World Bank calculations.

11 The rapid growth, mainly driven by the oil sector, reversed in 2016 to –3.1 percent, largely because of the oil price shock and macroeconomic policy tightening.
12 According to the World Bank (2012a), the average pension rose from 42 percent of the subsistence level to 95 percent over the first decade of the 2000s. Average annual real wages grew by 13 percent in the same period, and the minimum wage increased from manat 5 in 2000 to manat 85 in 2010.

Spatial inequalities in GDP were wide, but, in household consumption, they were more modest. Measured by the Gini coefficient of GDP per capita in first local administrative units, Azerbaijan exhibited more than two times the inequality of any other Europe and Central Asian country, suggesting that inequalities in production were high and persistent across the country's economic regions (figure 14). However, household inequality measured by Theil's L coefficient was 0.12, at the lower end of the range of Europe and Central Asian countries and the lowest coefficient in the South Caucasus.

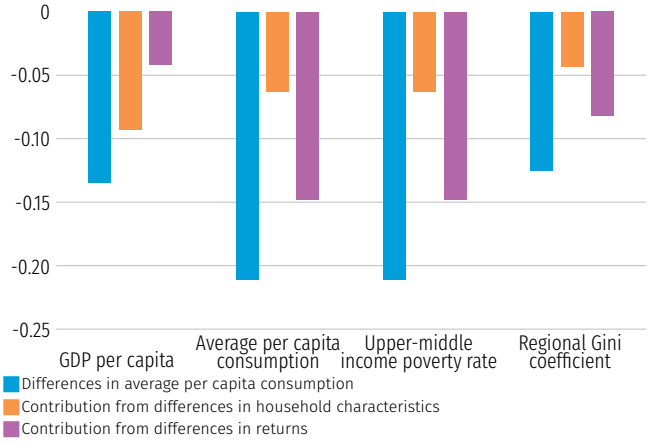
Rural areas are poorer than urban areas, whether or not Baku is excluded (figure 15). However, while the gap between rural areas and cities other than Baku can largely be explained by observable household characteristics such as educational attainment and labor market status, the gap between Baku and other cities cannot be explained in this way, indicating a structural difference in the nature of local economies. Similarly, structural differences largely explain the gaps between leading and lagging economic regions defined by four measures (figure 16). This is consistent with the findings on nonincome welfare measures (see below). Low labor mobility and, thus, slow urbanization are partly caused by the lack of skills and knowledge among workers in rural areas, who are unable to match the skills required by urban jobs.

Figure 15. **Decomposition of consumption differences between urban, rural, and capital areas, Azerbaijan**



Source: Estimates based on data of the 2015 Azerbaijan Monitoring Survey of Social Welfare.
Note: Welfare is measured by the log of per capita consumption. Based on a Oaxaca-Blinder decomposition to estimate the relative contribution to differences in consumption from: (a) the household characteristics (endowments and human capital), and (b) the returns to those household characteristics. See Skoufias and Olivieri (2013) for methodological details.

Figure 16. **Decomposition of consumption differences between leading and lagging economic regions, Azerbaijan**



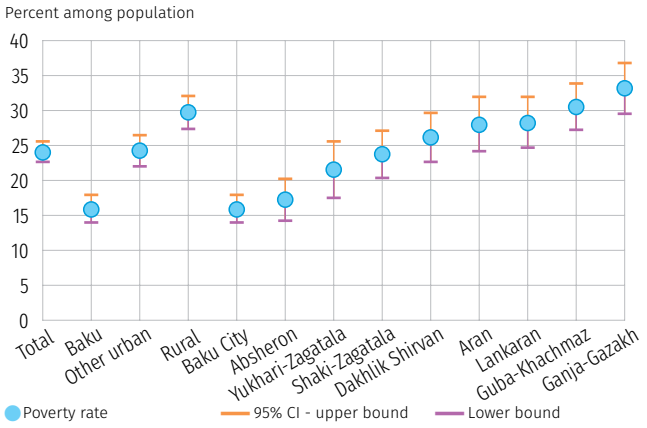
Source: Consumption per capita: estimates based on the 2015 Azerbaijan Monitoring Survey of Social Welfare. GDP per capita: State Statistical Committee (as of May 2018).
Note: Based on a Oaxaca-Blinder decomposition to estimate the relative contribution to differences in consumption from: (a) the household characteristics (endowments and human capital), and (b) the returns to those household characteristics. See Skoufias and Olivieri (2013) for methodological details.

Poverty

Poverty rates range from 16 percent in Baku to 33 percent in Ganja-Gazakh Economic Region (figure 17). Because of the large share of the population in Aran, Baku, and Ganja-Gazakh, over 60 percent of the poor reside in these areas (figure 18). Furthermore, 57 percent of the population is highly vulnerable to falling back into poverty should they suffer a shock, such as aggregate or idiosyncratic shocks in the labor market, health, or other sectors (World Bank 2017a).[13]

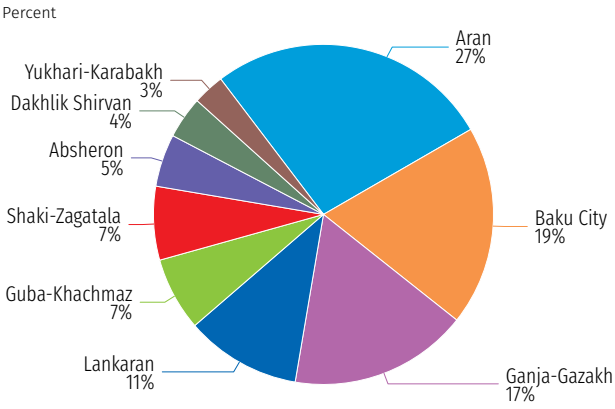
13 The vulnerable population is defined as people living above the US$5 and below the US$10 poverty lines, both per capita per day in 2005 purchasing power parity international U.S. dollars.

Figure 17. **Poverty rate, various local administrative units, Azerbaijan, 2015**



Source: Estimates based on the 2015 Azerbaijan Monitoring Survey of Social Welfare.

Figure 18. **Distribution of the poor, various local administrative units, Azerbaijan**



Source: Estimates based on the 2015 Azerbaijan Monitoring Survey of Social Welfare.
Note: Poverty is defined as those people living below the national poverty line of manat 97.4 per capita per month.

In the 2000s, poverty was mainly a rural phenomenon, and there was a clear Baku–outside Baku divide in living conditions. Rural areas had a poverty rate of about 30 percent, compared with 16 percent in Baku and the national average of about 24 percent.[14] Inequality was constant in rural areas between 2008 and 2015, while the Gini coefficient showed improvement in other locations (World Bank 2015b).[15] The rural-urban poverty gap varied across economic regions and was larger in regions with higher poverty rates.

Nonincome welfare measures

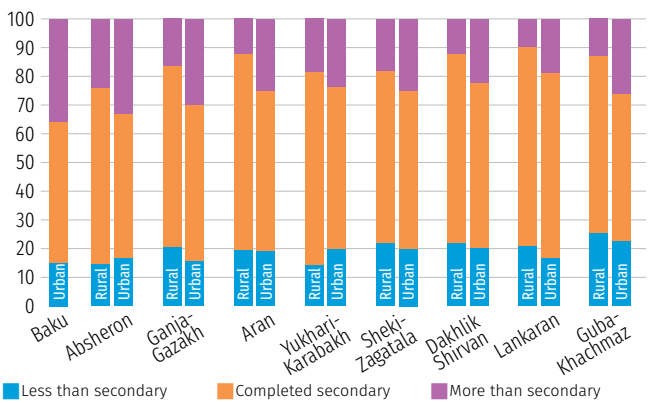
Education

Consistent with the spatial patterns of poverty, there is a significant gap between rural and urban areas in average educational attainment, such as in obtaining postsecondary degrees (figure 19). The share of the population with low educational attainment is largest in rural areas (World Bank 2017a).

Basic services

Access to drinking water and heating is near universal in Baku and other urban areas, but not in rural areas, where only 76 percent of households have access to water, and 82 percent to gas. Access rates are higher in Absheron and

Figure 19. **Educational attainment, various local administrative units, Azerbaijan**



Source: Estimates using 2015 Azerbaijan Monitoring Survey of Social Welfare.
Note: Includes individuals ages 15–64. Data unavailable for Kalbajar-Lachin and Nakhchivan economic regions.

14 Using the national poverty line.
15 The Gini coefficient was the lowest, at 0.271, in rural areas in 2008, compared with cities and towns outside Baku. Based on the 2015 Azerbaijan Monitoring Survey of Social Welfare, estimates of poverty were moderate, at 26 percent–27 percent, in all locations, including rural areas.

Baku and lower among poorer populations in Aran, Dakhlik-Shivran, Ganja, and Guba.[16] Targeted social assistance is provided through the country's social safety net program, but the share of households receiving social assistance is below 10 percent in all areas (World Bank 2017a).

Work and the economy

Structure of the economy

Rapid economic growth in the past decade was not accompanied by structural change. The oil and gas sector consistently accounted for more than 30 percent of GDP. The composition of employment was also constant. Around 40 percent of the working population was employed in agriculture, which only accounted for around 5 percent of GDP (figures 20 and 21). The absence of structural change is typical in an economy heavily dependent on high capital investment. Although employment in the construction sector increased, the low-employment oil sector explains the slow pace of urbanization and the persistent welfare gaps between rural and urban areas.

Figure 20. **Share of employment sectors, Azerbaijan**

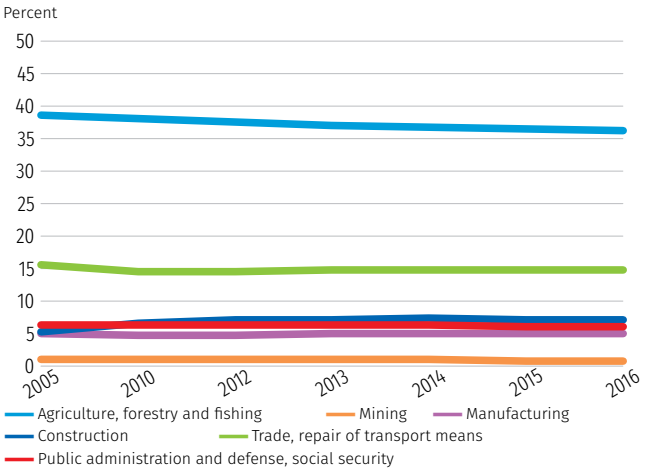
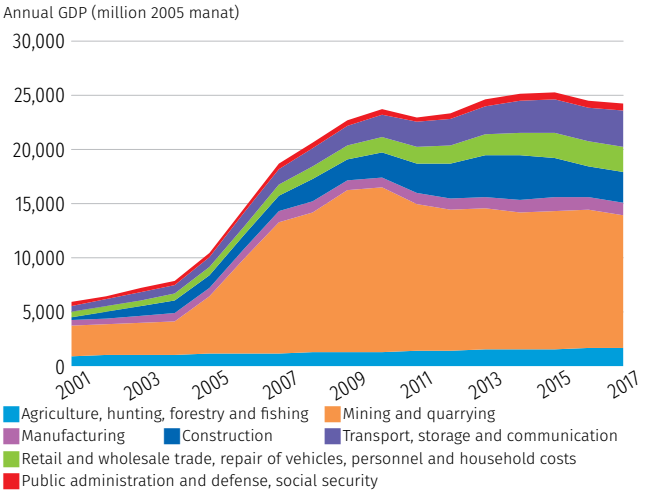


Figure 21. **GDP share and level, by employment sector, Azerbaijan**



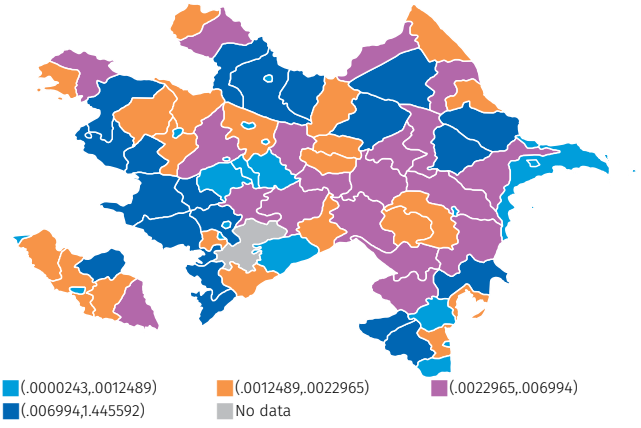
Sources: State Statistical Committee (as of June 2018); World Bank calculations.

Location of economic activity

Azerbaijan presents considerable heterogeneity in the locations of economic activity. Across the country, there are at least five poles of nighttime light emissions (the proxy for productivity): Ali Bayramli (Dakhlik-Shirvan Economic Region), Ganja (Ganja Qasakh), Nakhchivan and Shaki (Shaki-Zaqatala), and Yevlakh (Aran) (map 5). There is no notable pattern of correlation between poverty rates and luminosity. The highest values are found in the northeast (on the Caspian Sea), and the lowest values in the south (map 6).

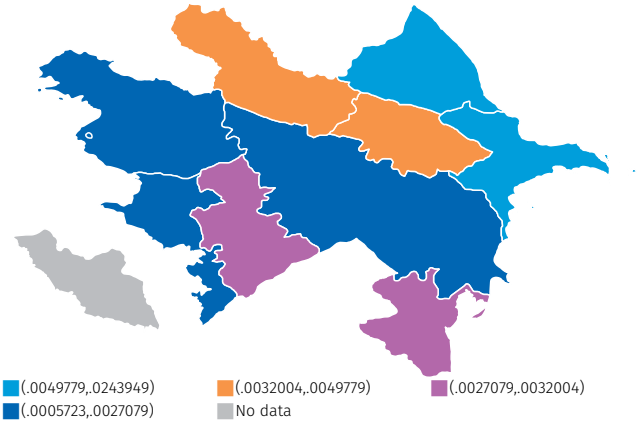
16 Access to electricity is universal across Azerbaijan and, therefore, 100 percent in these areas.

Map 5. **Lights/km², Azerbaijan, 2013**



Source: World Bank calculations.

Map 6. **Lights per inhabitant, Azerbaijan, 2013**



Source: World Bank calculations.

Azerbaijan seems to display the most connectedness in terms of distance, and the market potential of Baku is the largest among all cities in the South Caucasus (table 2; map 7). For example, the city of Sumqayit shows market potential at around 25, larger than any other noncapital city in the region.

Table 2. **Market potential of cities, Azerbaijan**

City	*Market potential*
Baku	260.1
Sumqayit	24.7
Ganja	13.0
Mingachevir	5.0
Shirvan	3.2
Shaki	2.8
Nakhchivan	1.0

Source: World Bank calculations.

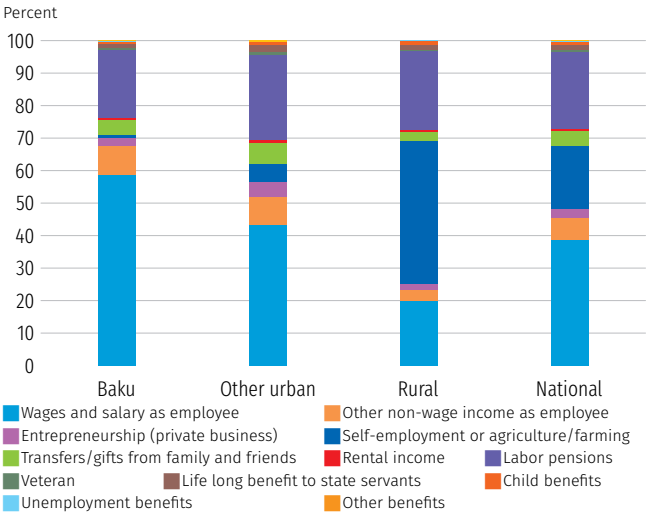
Map 7. **Roads and market potential, Azerbaijan**

Sources of household income

In Baku, the main income source is wages, whereas, in rural areas, it is self-employment and agricultural income (figure 22). As expected, there are differences in income sources between urban and rural areas, but no significant gap across economic regions (figure 23). Pensions are a relatively important source of income and are generally larger in urban areas, potentially reflecting more informality in rural areas.[17]

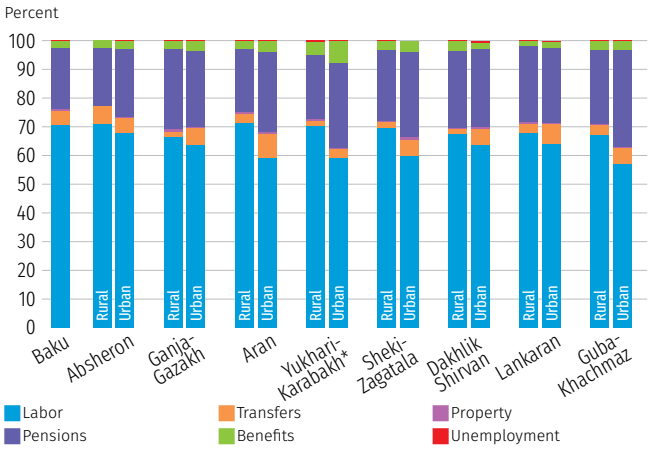
17 Among all social protection programs comprising pension, unemployment benefits, child benefits, and targeted social assistance, contributory pensions account for the largest share of all transfers. Contributory pensions are set in proportion to previous labor income, and thus the amount is expected to be higher in urban areas (World Bank 2018d).

Figure 22. **Source of household income in Baku, other urban areas, and rural areas, Azerbaijan**



Source: Estimates based on data of the 2015 Azerbaijan Monitoring Survey of Social Welfare.

Figure 23. **Sources of household income, various local administrative units, Azerbaijan**

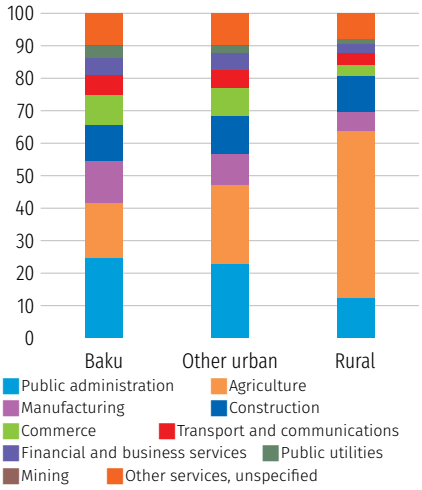


Source: Estimates based on data of the 2015 Azerbaijan Monitoring Survey of Social Welfare.

Labor market

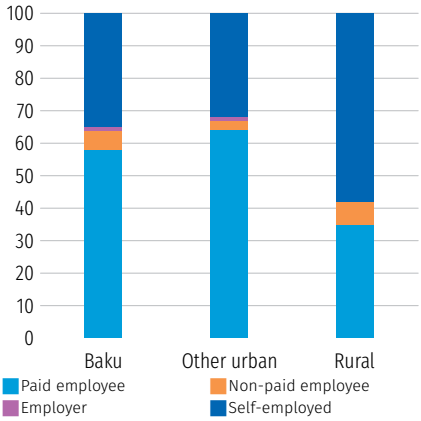
The pattern of employment across sectors differs substantially by location. The public administration is the largest employer for the urban population, followed by construction and manufacturing (figure 24). More than half the rural population ages 15+ is engaged in agriculture, a sector in which the value added was only 6.7 percent of GDP in 2015. The most geographically concentrated industries tend to be agriculture and mining, followed by manufacturing and then services, which tend to be the most highly dispersed. The dominance of agriculture in rural areas contributes to a spatial divide in employment status. Among jobholders, 60 percent in Baku and other cities are paid employees, while 57 percent in rural areas are self-employed (figure 25).

Figure 24. **Employment sectors in Baku, other urban areas, and rural areas, Azerbaijan**



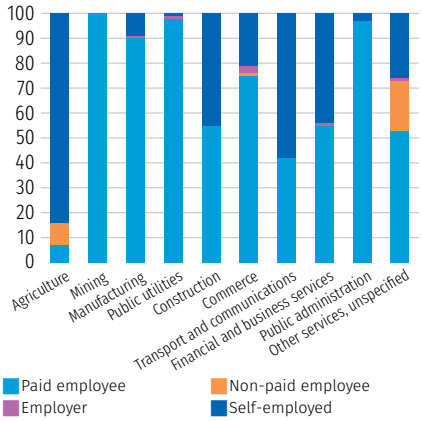
Source: World Bank calculations based on data of the Azerbaijan Monitoring Survey of Social Welfare 2015.

Figure 25. **Employment status in Baku, other urban areas, and rural areas, Azerbaijan, 2015**



Source: World Bank calculations based on data of the Azerbaijan Monitoring Survey of Social Welfare 2015.

Figure 26. **Employment status, by sector, Azerbaijan, 2015**



Source: World Bank calculations based on data of the Azerbaijan Monitoring Survey of Social Welfare 2015.

Summing up: main findings on Azerbaijan thus far

The people of Azerbaijan have experienced population growth, both overall and in each economic region, but the populations of smaller regions are expanding more quickly. No correlation appears to exist, however, between population size and economic growth. The share of the urban population in the total is low and constant, at around 50 percent, most likely because of the oil-led growth of the economy. Similarly, there is no evidence of a convergence in per capita incomes across economic regions.

The overall spatial inequality in regional GDP is the highest in Azerbaijan among all Europe and Central Asian countries, but household consumption inequalities are modest and almost entirely driven by differences within economic regions. This divergence between GDP and consumption is most likely caused by the oil-driven economy. Differences in household consumption between Baku and other parts of the country cannot be explained by observable characteristics. However, differences between rural areas and cities other than Baku largely can be explained in this way.

Over half the country's poor live in the four rural economic regions with the highest poverty rates, but a substantial number of the poor also live in Baku, in Absheron, the richest economic region. The rural-urban poverty gap varies across economic regions and is larger in regions with higher poverty rates. Similarly, the share of the population with low educational attainment is larger in rural areas than in urban areas. Access to services follows a similar pattern. Thus, access to good drinking water and heating are near universal in Baku and other urban areas, but rural populations have more limited access.

Relatively more economic activity occurs in Baku and in five other cities across the country, although it is likely that Baku and the adjacent areas are the most productive. While Baku has the largest market potential, other cities, especially Ganja and Sumqayit, also have relatively high potential. There has been limited change in structural employment, despite the sharp GDP growth associated with natural resources. Employment patterns vary across urban and rural areas, but are largely similar across economic regions. Most people working in rural areas are active in the agricultural sector, while public administration and construction are the largest sectors in Baku and other cities.

People engaged mainly in low-productivity jobs, whether agriculture in rural areas or other jobs in cities outside Baku, benefited less from growth. The benefits from oil-financed growth were shared partly through a dramatic rise in pensions, real wages, and the minimum wage. Although this has had a significant impact on poverty reduction, the growth has not been inclusive and has failed to provide opportunities for people living in rural areas and individuals with low human capital (Onder 2013).

Employment in sectors with good future potential, such as financial and business services, other services, and manufacturing, must expand if the economy is to diversify and be transformed.

Georgia

Low fertility and outmigration have led to a substantial decline in Georgia's population: from 5.0 million in 1991 to 3.7 million today and a projected 3.0 million by 2050 (World Bank 2018b). Population decline has occurred mainly since 2013; before that, in 2007–13, the population was relatively stable. In 2012–15, every region saw an annual decline in population, though Tbilisi was the least affected (figure 27).

Figure 27. **Population growth, Georgia, 2012–15**

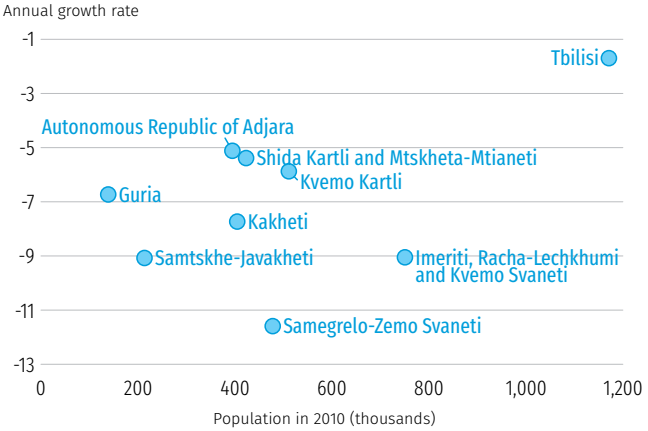
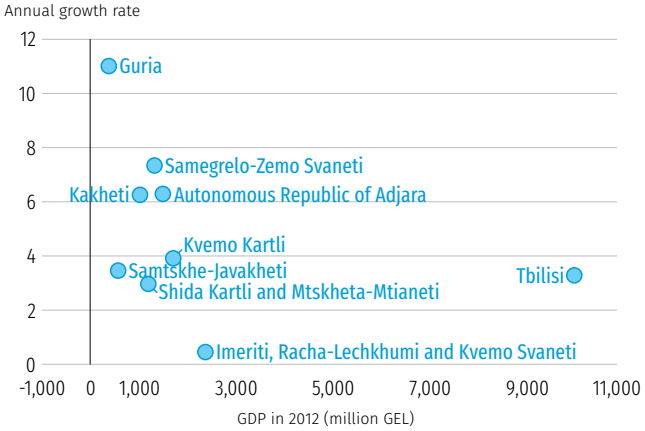


Figure 28. **GDP growth, Georgia, 2012–15**



Source: World Bank calculations based on data of the National Statistics Office of Georgia.

Income and consumption

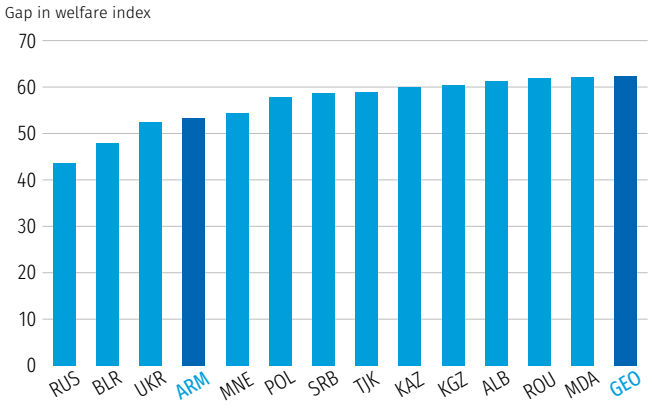
Following the global financial crisis in 2008–09, per capita GDP growth in Georgia was among the best in Europe and Central Asia (close to 4.6 percent a year). From 2012 to 2015, all regions in Georgia experienced positive growth rates, exceeding 2 percent in almost all regions. Guria, with 11 percent GDP per capita growth, was a notable outlier (figure 28).[18]

Inequality is influenced by spatial disparities. Georgia has the second largest urban-rural welfare gap among twenty-eight countries of Europe and Central Asia (figure 29). The share of inequality explained by inequality between regions was approximately constant between 2003 and 2013 (Bussolo et al. 2018).

In 2009–16, Georgia's leading regions, Samtskhe-Javakheti and Tbilisi, saw significant growth in per capita consumption, while the three most lagging regions, Kvemo Kartli, Mtskheta-Mtianeti, and Shida Kartli, showed little growth (figure 30). A puzzle is the apparent wide difference in the amount of growth between income and consumption. Households in every region experienced between 40 percent and 80 percent per capita income growth, but an average 23 percent growth in per capita household consumption across regions.

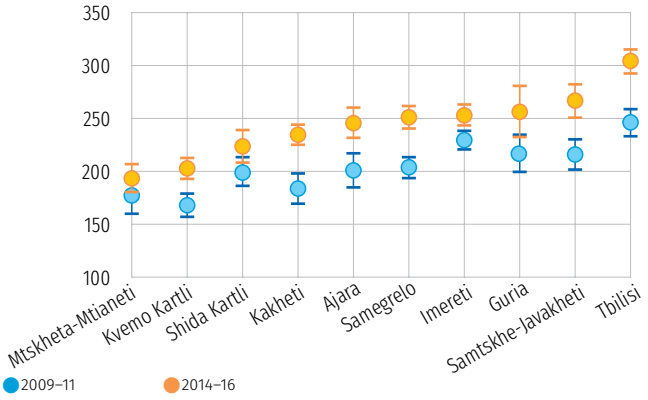
18 Guria is located on the Black Sea coast. It is home to the coastal tourist city of Batumi and one of the largest tea-growing areas in Georgia.

Figure 29. **Gap in welfare index between urban and rural areas, Europe and Central Asia, 2016**



Source: Bussolo et al. 2018.

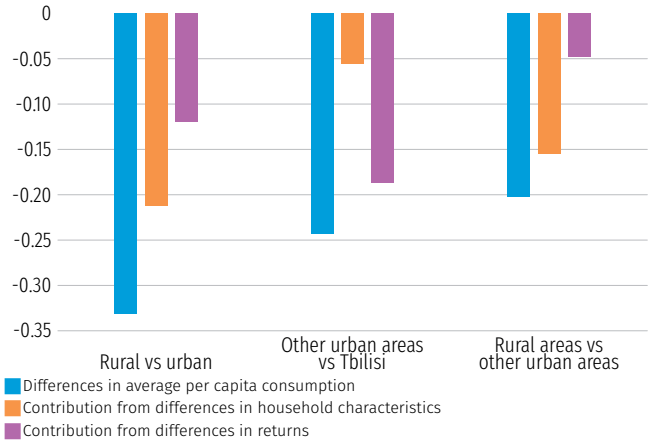
Figure 30. **National consumption aggregate, by region, Georgia**



Source: World Bank calculations; based on the 2009–16 Integrated Household Survey.
Note: The consumption aggregate is household monthly expenditure per adult equivalent with constant values at the 2016 price in lari and adjusted by national prices. The regions are ranked from lowest to highest as of 2015.

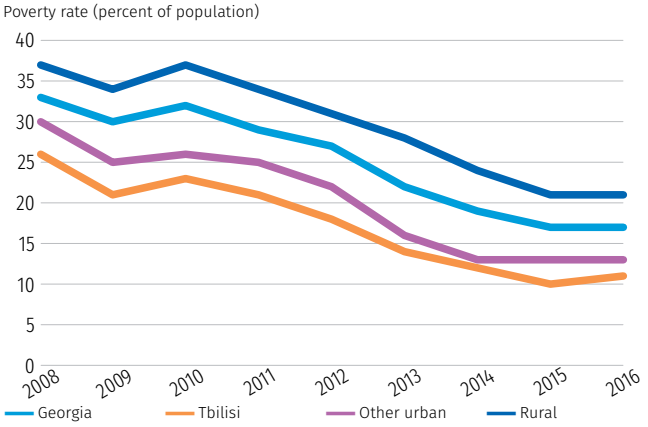
Georgia, including Tbilisi, exhibits higher per capita consumption in urban areas than in rural areas. Observable household characteristics, such as educational attainment and labor market status, largely explain the gap between rural areas and cities other than Tbilisi, but not the gap between Tbilisi and other cities (figure 31). This suggests that Tbilisi is structurally different than other cities, which may be structurally closer to rural areas. Similarly, less than half the difference in per capita consumption between lagging and leading regions can be attributed to differences in household characteristics, supporting the hypothesis of structural differences.

Figure 31. **Decomposition of consumption differences between urban, rural, and capital areas, Georgia**



Source: World Bank calculations. Note: Welfare is measured by the log of per capita consumption. Based on a Oaxaca-Blinder decomposition to estimate the relative contribution to differences in consumption from: (a) the household characteristics (endowments and human capital), and (b) the returns to those household characteristics. See Skoufias and Olivieri (2013) for methodological details.

Figure 32. **Poverty trends, Georgia, 2008–16**

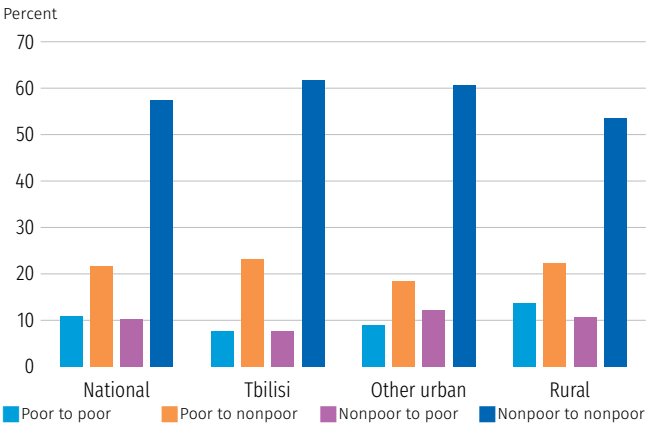


Source: World Bank calculations.

Poverty

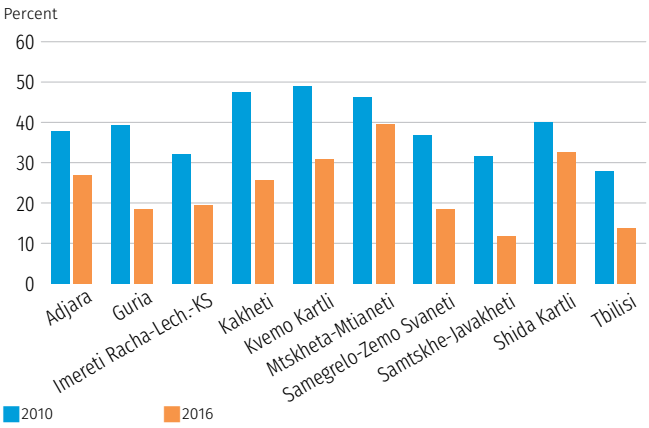
According to World Bank calculations, poverty rates were 11 percent in Tbilisi in 2016, compared with 13 percent in other cities and slightly more than 20 percent in rural areas (figure 32). Up to 2010, poverty rates declined at a slower pace in cities (after increasing in 2004–06) and rose in rural areas (World Bank 2018b). This trend reversed after 2010. Despite an overall reduction in poverty, a significant number of households fell back into poverty, especially in cities other than Tbilisi (figure 33). Across the country, close to half the population remains vulnerable, implying that small shocks can push many households into poverty (World Bank 2018b). In 2016, the headcount ratio rose in some regions, a cause for concern. Regionally, poverty has fallen everywhere in recent years. Though poverty reductions have been more modest in Mtskheta Mtianeti and Shida Kartli, the two poorest regions (figure 34). Poverty rates in Georgia could have fallen by 5 percentage points more if not for changes in the distribution of consumption across households.

Figure 33. **Poverty transitions, Georgia, 2009–15**



Source: World Bank calculations.

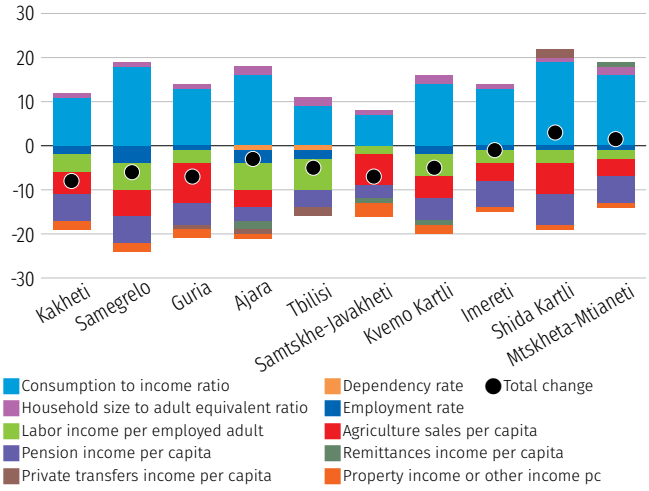
Figure 34. **Poverty rate, by region, Georgia, 2010 and 2016**



The findings on poverty reinforce the conclusion that the two leading regions are Samtskhe-Javakheti and Tbilisi, while Mtskheta-Mtianeti and Shida Kartli are lagging regions. Geographically, the regions in the east and west borders can be said to be catching up. Most of Georgia's poor live in regions catching up; about a fifth live in the two lagging regions; and only 13 percent are in leading regions.

Compared with the two leading regions, Samtskhe-Javakheti and Tbilisi, the ratio of consumption to income is much higher in all other regions, which negatively impacts poverty reduction (figure 35). The more well performing regions that exhibit large poverty reductions and increases in consumption and income also

Figure 35. **Drivers of poverty reduction, by region, Georgia, circa 2010 to circa 2015**



Source: World Bank calculations based on the 2009–16 rounds of the Integrated Household Survey.
Note: Income and consumption are monthly per capita averages in lari in 2014 constant prices.

enjoy more contributions from labor market improvements. Tbilisi, Adjara and Samegrelo show more progress in labor incomes, while Samtskhe-Javakheti and Guria enjoy more benefits from agriculture sales.

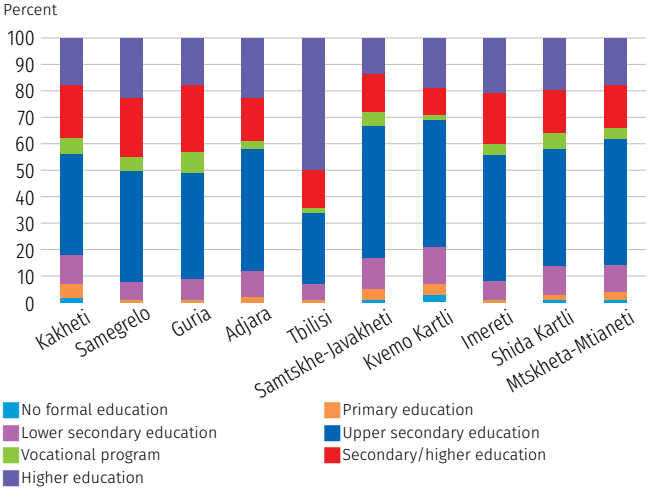
Nonincome welfare measures

There have been improvements in the nonincome dimensions of well-being in Georgia. The infant mortality rate fell from about 30 to 10 per 1,000 live births between 2000 and 2015. Adult literacy, primary enrollment, access to electricity, and improved drinking water are now nearly universal (World Bank 2018b).

Georgians enjoy wide educational access comparable with the access in high-income European countries. However, there are spatial disparities in education, which are mostly reflected in the gap between Tbilisi and the rest of the country. Over half the population in Tbilisi has attained tertiary education, compared with about a fifth in other regions. As many as 40 percent of the unemployed have degrees in higher education (World Bank 2018b).

Educational attainment is roughly the same across regions other than Tbilisi (figure 36). The four regions catching up seem to have better educational attainment, which might partly explain their better performance in welfare improvement and poverty reduction. School attendance is higher outside large urban centers, but learning outcomes lag the averages in the countries of the Organisation for Economic Co-Operation and Development (OECD) and in Europe and Central Asian (World Bank 2018b).

Figure 36. **Educational attainment (ages 15+), by region, Georgia, 2015**



Source: World Bank calculations.

Pensions and social assistance

Wages, pensions, and social assistance have been the key to raising household incomes (World Bank 2018b). Social assistance now accounts for 41 percent of total household income, mainly from pensions (27 percent) and targeted social assistance (11 percent) (World Bank 2018b). Social assistance for the underemployed or unemployed has kept the poverty gap narrow between rural and urban areas (World Bank 2018b). However, the lagging regions east of Tbilisi have benefited from pensions less than the richer regions, such as Adjara and Samegrelo. Regions catching up, such as Adjara and Kakheti, tend to be rural and older and have benefited more from pensions among rural households.

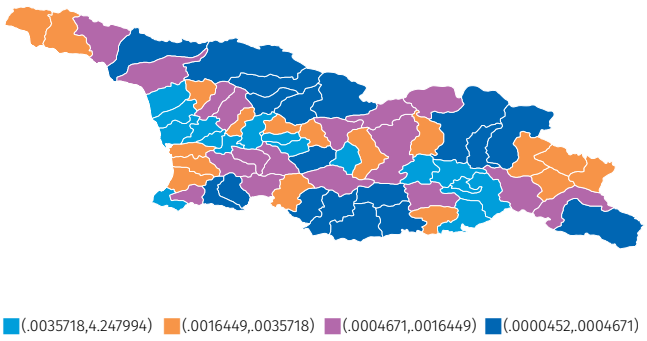
Work and the economy

Georgia's economy is mainly driven by services, which account for around two-thirds of GDP and employ about a third of the labor force. The importance of manufacturing has remained more or less constant, at 10 percent of GDP, and employs only about 4 percent of the labor force. In contrast, agriculture accounts for less than 10 percent of GDP, but employs over half the labor force, mostly in subsistence agriculture.

The location of economic activity

Using data on nighttime light emissions, one may conclude that economic activity is concentrated in major urban areas (map 8). The concentration follows route E60 from the east to the southwest, passing through Tbilisi and ending in Poti. Regions with high luminosity, such as Kvemo Kartli and Samtskhe–Javakheti, also have low poverty rates, while less well illuminated regions, such as Mtskheta and Shida Kartli, concentrate more of the poor population. Using light emissions relative to population as a proxy for productivity, one may conclude that the most productive areas are in the west, while the least productive areas are in the northeast and northwest.

Map 8. **Lights/km², Georgia, 2013**



Source: World Bank calculations.

Tbilisi is far ahead of other cities in terms of market potential, meaning that most urban centers other than Tbilisi are relatively far from other large urban centers, as measured by travel times (table 3). Map 9 shows the physical location of urban centers and their connectivity to Tbilisi.

Table 3. **Market potential of cities, Georgia**

City	*Market potential*
Tbilisi	77.6
Kutaisi	9.9
Rustavi	7. 2
Batumi	5.7
Gori	4.3
Zugdidi	3.7
Sukhumi	3.2
Tskhinvali	2.7
Poti	2.4
Khashuri	2.1

Source: World Bank calculations.

Map 9. **Roads and market potential, Georgia**

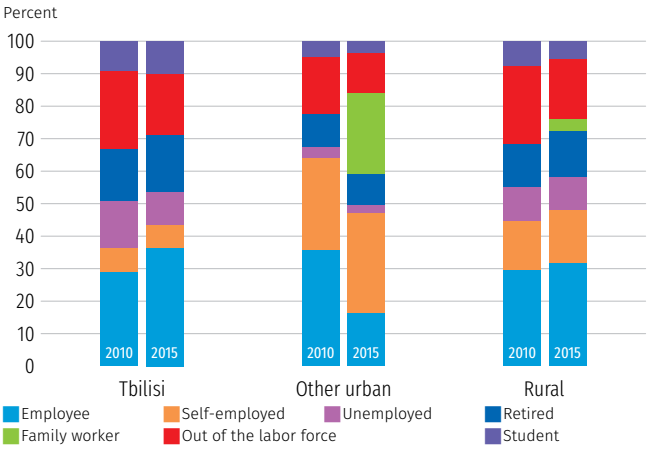
Firm characteristics

According to a study on the competitiveness of firms in Georgia, spatial effects are important drivers of the competitiveness of firms in Georgia. Although a considerable proportion of competitiveness is associated with the firms' characteristics, location-specific factors (including agglomeration effects, human capital endowments, and infrastructure investments) have significant influence on firm-level competitiveness (Rodríguez-Pose and Hardy 2017). About half the firms in Georgia in 2016 were more competitive than one might expect based on observable characteristics. The country is particularly productive in agriculture, fishing, commerce, and industry, but lacks productivity in services. Among firms, 45 percent overall show an input-output productivity ratio above 1.0, ranging from 42.5 percent in Guria to 49.5 percent in Kvemo Svaneti and Racha-Lechkhumi. Highly productive firms are found in Kvemo Svaneti, Racha-Lechkhumi, and Tbilisi.[20] Located on the west coast, Samegrelo seems to be the most productive region in the country, while Samtskhe-Javakheti is the least productive. The most productive sectors nationwide are agriculture, hunting, and fishing, driven particularly by the high results in Kakheti and Shida Kartli, while education and health care are the least productive, particularly in Adjara, Kvemo Kartli, Samegrelo, and Tbilisi. The performance in electricity, gas, and water is also poor.

Employment

In most regions, the labor force participation rate increased in 2010–15, though the employment rate was similar across the period. Regional disparities in labor market performance persist. Tbilisi retains the highest employment rate and the largest share of paid employees and remains heavily focused on the service sectors. In the same period, paid employment expanded in Tbilisi and rural areas, but declined in other urban areas, as family employment and self-employment increased. Salaried employment is low across all regions of Georgia, at 19 percent. Women and rural residents are the least likely to hold formal employment (World Bank 2018b). In cities other than Tbilisi, self-employment and family employment accounted for over 50 percent of jobs in 2015.

Figure 37. **Employment status in Tbilisi, other urban areas, and rural areas, Georgia, 2010 and 2015**



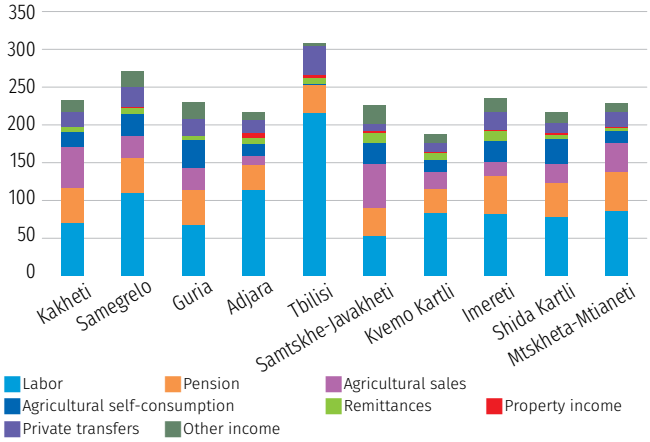
Source: World Bank calculations.

Employment is highly concentrated in agriculture throughout the country apart from Tbilisi, where services and industry represent more than two-thirds of all jobs. Regions with major cities employ relatively fewer people in agriculture. However, agriculture still employs over 50 percent of people outside Tbilisi, rising to over 70 percent in Guria and Samtskhe-Javakheti.

19 If one uses the Levinsohn and Petrin (2003) methodology, the results change: 55 percent of firms produce above the nationwide average. The extreme cases are Mtskheta-Mtianeti, at 64 percent, and Tbilisi, at 52 percent.

Sources of household income

Figure 38. **Income sources, by region, Georgia, 2015**



Source: World Bank calculations based on the 2009–16 rounds of the Integrated Household Survey.
Note: Income and consumption are monthly averages in lari at 2014 constant prices per capita.

Income from labor and agricultural sales became more prominent after 2010, accounting for over 80 percent of observed income. Income from employment is the main source of household income only in Adjara and Tbilisi. Elsewhere, most household income derives from labor, pensions, and agriculture (Figure 38). Samtskhe-Javakheti has a substantially different income composition relative to Tbilisi, the other leading administrative region in Georgia. Samtskhe-Javakheti, a major agrarian region, receives higher income from agricultural sales.

Income from labor and agriculture constituted close to half of total income among the poor in 2015. While agricultural income dominates in rural areas, labor income still contributes more than 20 percent of total income among the poor in rural areas, suggesting there are opportunities outside agriculture (World Bank 2018b). The income from international remittances represents a modest share of total income. The share of social assistance declined to close to 30 percent (World Bank 2018b).

Tbilisi appears to be an outlier in terms of wages. Other regions have a more homogeneous average wage. However, controlling for education, age, and economic sector, one finds that workers earn 17 percent to 27 percent less in all regions relative to Tbilisi, with the exception of Samegrelo, where workers make between 19 percent and 26 percent more. Spatial disparities in labor income have clearly emerged in recent years.

Summing up: main findings on Georgia thus far

All regions except Tbilisi show population declining since 2012, mainly because of emigration, highlighting the importance of boosting overall economic activity in the country. Most regions have experienced substantial poverty reduction since 2010. Although Kakheti and Kvemo-Kartli have seen sharp reductions in poverty, they still have the highest numbers of absolute poor, at nearly 30 percent. Two regions—Mtskheta-Mtianeti and Shida Kartli—did not see the same progress and are lagging because of high poverty rates and limited progress over the period.

Economic activity is concentrated in Tbilisi and along route E60, where productivity is higher. In lagging areas productivity is lower. Most cities are quite distant in terms of travel time from Tbilisi. Salaried employment is low across all regions except Tbilisi and has sharply declined in cities other than Tbilisi, signaling a potential increase in informal work. Thus, the evidence suggests there are structural differences between the economies of Tbilisi and other cities.

An important finding is that household consumption changes were small in most regions, despite increases in real incomes. In lagging regions, high ratios of consumption to income hindered poverty reduction despite rising incomes. In leading regions, rising labor income and agricultural sales contributed greatly to poverty reduction. Labor income is prominent in Tbilisi, while agricultural income is prominent in Samtskhe-Javakheti, the other leading region.

Pensions and transfers are an important part of household income, but could have been targeted more effectively at lagging regions east of Tbilisi. There is weak evidence that educational attainment is lower and stagnating in lagging regions.

Key takeaways for each country

Armenia

- *Economic performance has been strong in Armenia.* In 2012–15, GDP per capita grew at an average annual rate of 3 percent.

- *Poverty is geographically concentrated.* Poverty rates and vulnerability to poverty are highest in secondary cities and northern Armenia, while Yerevan has the largest number of the poor. One in three people who moved out of poverty in 2010–16 eventually fell back into poverty. High growth in secondary cities has driven some convergence.

- *High inequality is hampering poverty reduction.* Armenia has one of the widest inequality gaps in Europe and Central Asia. Income inequality among provinces is growing, though the bulk of the variation in inequality is occurring within provinces. Structural differences in the composition of provincial economies also contribute to consumption gaps between lagging and leading provinces. Migration toward richer areas is increasing inequality.

- *The provinces of Armenia are moving along distinct development trajectories.* Important disparities persist between Yerevan, other urban areas, and rural areas. The capital concentrates most economic activity and market potential, and it benefits from higher consumption and immigration flows. Rural areas remain the most vulnerable because of self-employment, lower wages, and the growing dependency on agriculture. Secondary cities are catching up in employment and wages, but poor connectivity and agglomeration hinder their market potential. Productivity is highest in the southwest.

- *Demographic challenges and spatial inequalities are contributing to forgone agglomeration opportunities.* Emigration shrinks the population and, along with substantial poverty in northern cities, is exacerbating deconcentration.

- *The country is facing significant pressure to generate new jobs.* The creation of new jobs in higher-productivity sectors, such as services and industry, has only partially offset the loss of lower-productivity jobs. Increasing productivity has freed up rural workers, while the lack of job

opportunities is encouraging migration, mainly to Yerevan and outside Armenia. Hired employment is concentrated in Yerevan, while self-employment has been expanding in rural areas.

- *Spatial inequalities affect the access to and functionality of public services and education.* Despite improvements, 70 percent of households lack access to adequate housing. Overcrowding is high in urban areas. Rural households lack access to healthy heating and quality public services. Educational attainment is lower in the poorer north of the country.

- *Social assistance is an important source of income, but remains limited.* The increased coverage of the Family Benefit Program is reaching more poor and vulnerable households, but the limited budget is restraining the impact on poverty. Pensions are more important in secondary cities.

Azerbaijan

- *Azerbaijan has enjoyed high oil-driven growth and a steadily increasing population.*

- *Rural poverty rates are highest, though most of the poor are living in cities.* Rural areas show the highest poverty rates, despite overall drops in poverty during the 2000s and an even distribution of rates across the country. Among the poor, 60 percent are living in the most populated areas, Aran, Baku, and Ganja-Gazakh.

- *Vulnerability remains high, and inequality has narrowed only slowly.* The majority of the population, 57 percent, is at risk of falling back into poverty. In 2008–15, inequality stagnated in rural areas, but improved in other locations. The disparities between Baku and the rest of the country have widened.

- *The oil-dependent economy is capital intensive and provides low employment and agglomeration opportunities.* The oil sector dominates GDP, but provides only a small share of all jobs. Non-oil sectors remain weak. The substantial dependency on natural resources is promoting low urbanization rates.

- *Employment, income sources, and productivity differ by location.* Rural employment is concentrated in low-productivity agriculture. The main income source in Baku is wages, whereas self-employment and agricultural income dominate in rural areas. Productivity is highest on the Caspian Sea coast in the northeast and lowest in the south.

- *Urban-rural disparities are affecting access to education and basic services.* Educational attainment is lowest in rural areas. Access to drinking water and heating is near universal in Baku and other cities, but not in rural areas.

- *Social assistance represents an important source of income, but remains limited.* The share of households receiving social assistance is below 10 percent in all areas. Pensions are an important source of income, but benefit mostly urban areas, potentially reflecting higher rural informality.

- *Baku enjoys good connectivity, and there are other poles of economic activity.* Baku has the largest market potential among all cities in the South Caucasus. Other cities in Azerbaijan have considerable market potential.

Georgia

- *Georgia's economic performance has been strong, though a shrinking population and uneven development threaten long-term growth.* GDP per capita growth is among the highest in Europe and Central Asia. Migration and low birth rates are contributing to a declining population. Trends in poverty and inequality have followed geographic patterns.

- *Spatial disparities in poverty and vulnerability are high and expanding.* Despite large poverty reductions since 2010, a significant share of households have fallen back into poverty, especially in secondary cities, and the poverty ratio increased in 2016. Close to half the population is vulnerable to shocks. Poverty rates are highest to the east of Tbilisi and in rural areas and lowest in Tbilisi.

- *Inequality is influenced by regional disparities.* Urban-rural differences drive a large share of welfare inequality. Differences in per capita consumption also suggest there are structural economic splits, particularly between Tbilisi and other regions. Inequality has grown more quickly in secondary cities.

- *Economic activity, productivity, and market potential are geographically concentrated.* Economic activity is concentrated in major urban areas and follows route E60. Productivity is highest in the northeast border area. Tbilisi has the most market potential and is the focus of services and industry. Employment in other regions is mostly agricultural. Geographical isolation and poor connectivity are hindering the market potential of secondary cities.

- *Pensions and social assistance are large sources of household income.* Pensions contribute 27 percent of household income, but their benefits are concentrated in wealthier regions. Targeted social assistance to the under- and unemployed is helping reduce the poverty gaps between rural and urban areas.

- *Most workers are concentrated in low-productivity informal activities.* Agriculture accounts for less than 10 percent of GDP, but employs over half the labor force. Productivity is still low in the services and energy sectors. There are areas of opportunity in relatively competitive firms and regions.

- *There has been much improvement in many dimensions of well-being and access to basic services.* Infant mortality and adult literacy rates have improved, and access to basic services (education, electricity, and improved drinking water) are nearly universal.

- *Learning outcomes remain stagnant and are correlated with geography.* Despite wide access to education, learning outcomes lag, and there are large gaps between Tbilisi and other regions.

Chapter 2. Social and economic mobility

Chapter 2. Social and economic mobility

Main findings[21]

- A growing and substantial share of the population believes inequality is rising and standards of living are falling in the South Caucasus, especially relative to the pretransition conditions of their households. Such perceptions are not confirmed, however, by more objective data-based measurements or cross-country comparisons.
- Despite periods of substantial economic growth and considerable reductions in poverty over the past decade, a significant share of the population fell back below the poverty line or remained in chronic poverty in all three countries. Other important sectors of the population escaped poverty, but remain vulnerable to idiosyncratic and macroeconomic shocks.
- Although social transfers have increased incomes among the poor, improved labor market opportunities have been the main driver in overcoming poverty. However, access to income-generating opportunities is low among the chronically poor, the geographically isolated, and people living in certain locations; perpetuating the dependence on low-productivity agriculture.
- Available data on the South Caucasus indicate there is considerable churning—upward and downward shifts—in both economic mobility (as evidenced by movements around the poverty line) and social mobility (as measured by the possibility to improve educational attainment across generations).

Introduction

While the countries of the South Caucasus have seen considerable reductions in poverty, they continue to face many challenges. Poverty rates measured by the US$5.50-a-day poverty line remain high, at 43.5 percent, 28.0 percent, and 45.5 percent in Armenia, Azerbaijan, and Georgia, respectively. The people of the South Caucasus are vulnerable to idiosyncratic shocks, such as health shocks among individuals and macroeconomic shocks caused, for example, by commodity price fluctuations and currency devaluations. In addition, there are many spatial disparities in welfare between urban and rural areas and between capital cities and the rest of the cities in these countries. The combination of vulnerability and spatial disparity leads to persistent inequalities in opportunities among the poor in certain regions and districts, which may lead to poverty traps.

20 This chapter is based on Tiwari et al. (2018).

This chapter investigates this problem by drawing on two concepts of mobility according to the classifications of Ferreira and Gignoux (2013) and Fields (2000). The first envisions mobility as movement that is associated either with absolute changes in the gross or net incomes of individuals, or with changes in a relative measure of income, such as the share of total income or an income ranking. This might be referred to as intragenerational or economic mobility, that is, changes in the income of an individual over time. The second envisions mobility as independence from an origin, holding that an individual's circumstances at birth, such as sex, geography, or ethnicity, should be uncorrelated with the welfare outcomes in their lifetimes. This can be viewed as intergenerational or social mobility because it depends on mobility across generations.

Analyzing these concepts of mobility enriches the understanding of the welfare dynamics of the South Caucasus. Economic mobility enables an investigation of whether reductions in poverty are being caused by a gradual improvement in the living standards of all households or by a more volatile process whereby large numbers of households are escaping poverty even as large numbers are falling back into poverty (churning). Social mobility is a signifier of inclusiveness. A society in which parental characteristics limit the participation of individuals in the economy is unfair and hinders the creation and sharing of the benefits of growth.

Economic mobility

Perceptions

Respondents to the 2016 round of the Life in Transition Survey, conducted in 34 countries, were asked about their assessment of the statement "my household lives better than it did four years ago." The assessments are quite varied across the three countries (figure 39).

Perceived downward mobility is common in Armenia and Georgia, where 66 percent and 57 percent, respectively, of the population believe that their households are doing worse relative to four years previous to the survey interview. In contrast, one Georgian in four and roughly one Armenian in five believed their households were better off at the time of the interview relative to four years previously. The substantial perception of downward mobility is not entirely consonant with the overall pace of poverty reduction in either country in this period (see chapter 1). Perceptions are more positive in Azerbaijan, where more than two households in five had a favorable assessment of their circumstances relative to four years earlier. However, the Azerbaijan results should be interpreted with caution because 16 percent of respondents replied "Don't know" to this question.

Another measure of perceptions of economic mobility can be obtained by asking respondents to situate their households in a 10-step Cantrill ladder representing levels of wealth currently and four years previous to the interview and then comparing changes in the ranking. The results, presented in figure 40, are broadly consistent with those in figure 39, though there are some notable differences. Across the three countries, a larger share of households perceived that they were at the same level of wealth as four years earlier. In Armenia and Georgia, perceived downward changes were still substantial,

though less pronounced than in the previous case. In Azerbaijan, however, two households in five perceived downward movement, while only one household in four perceived upward movement.

Figure 39. **Household assessments of whether life is better now than four years ago**

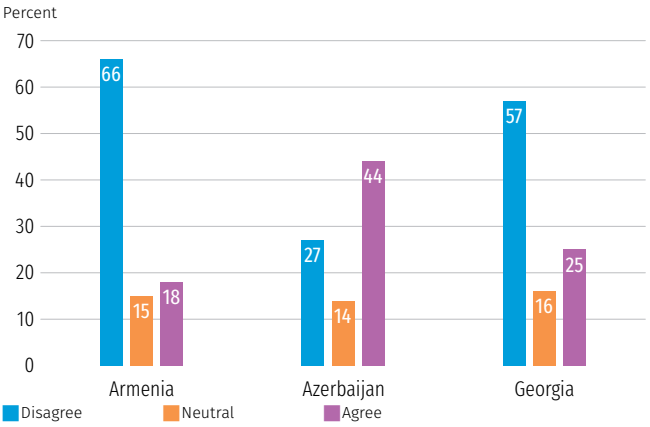
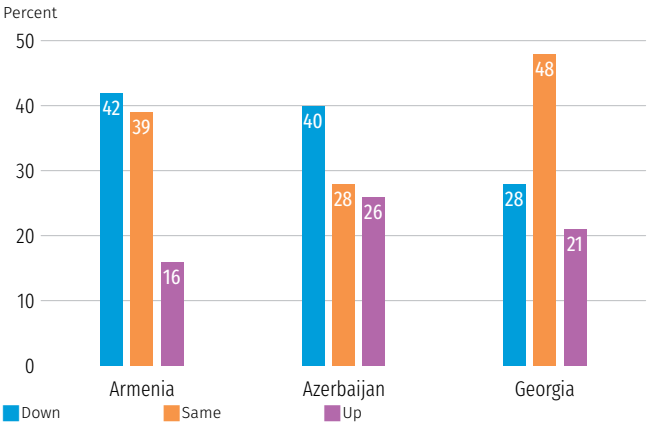


Figure 40. **Household perceptions of movements on the 10-step ladder of wealth now relative to four years ago**



Source: Calculated based on data of the 2016 round of the LiTS (Life in Transition Survey) (database), European Bank for Reconstruction and Development, London, http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html.
Note: The bars for each country may not sum to 100 percent because the responses "Don't know" and "Not applicable" are not plotted. Strong agreement and agreement are grouped into a single agreement category. Strong disagreement and disagreement are grouped into a single disagreement category.

Two main conclusions may be drawn from these assessments. First, perceived movements across the three countries are varied. Second, the patterns are broadly consistent with the level and pattern of economic growth. Relative to the case in Armenia, the population of Georgia tended to believe that it had witnessed a more rapid recovery after the 2008–09 global financial crisis and more highly shared growth, that is, more Georgians reported upward movements, and more Armenians reported downward movements. Similarly, in Azerbaijan, perceptions appear consistent with the recent oil price-related economic shocks the country has been confronting.

However, it is not clear how these perceived movements relate to actual changes in welfare and living standards. The characteristics of households and individuals who experience changes are also unclear. The following subsections tackle these issues. For Armenia, the analysis relies on multiple rounds of the national Income and Living Conditions Surveys. However, these surveys do not observe the same households over time. To compare changes, this report relies on a synthetic panel methodology.[21] For Georgia, the analysis relies on four rounds of the Welfare Monitoring Survey conducted by the United Nations Children's Fund. The case of Azerbaijan cannot be examined because of the absence of comparable data on two points in time.

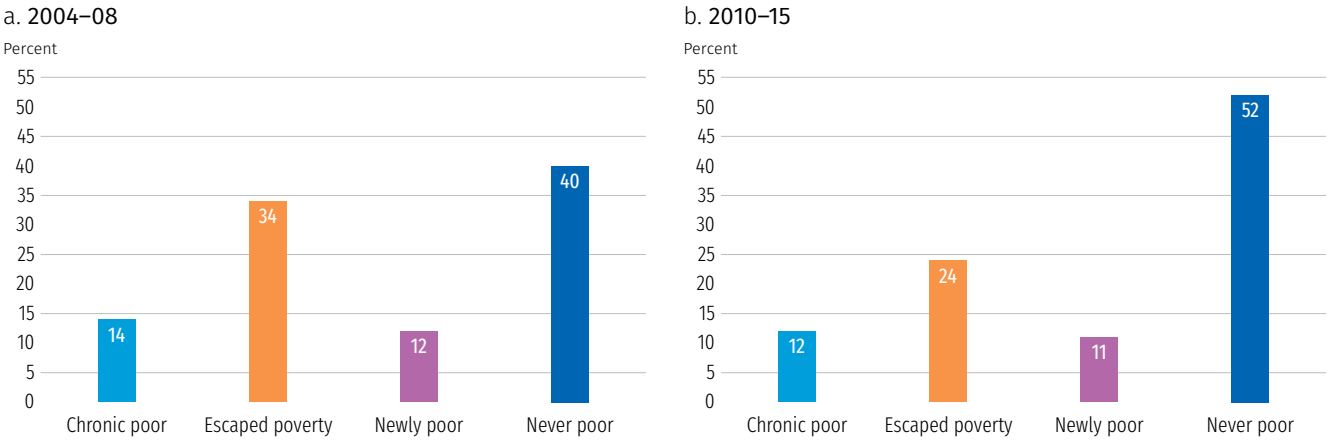
Armenia

In Armenia, the analysis focuses on two episodes of poverty reduction. In the first episode, between 2004 and 2008, the poverty rate fell sharply. The share of the population living below the national poverty line dropped by 25.9 percentage points. In the second episode, between 2010 and 2015, the poverty rate fell by a more modest 6.0 percentage points.

21 The synthetic panel methodology relies heavily on data on time-invariant characteristics to impute household welfare in the second period. Following best practice in the literature, the sample of households is typically restricted to households with household heads ages 25–55.

In the first period, 2004–08, a third of the population moved out of poverty, but a substantial share of the population, 12 percent, that had not been poor in 2004, had fallen into poverty by 2008 (figure 41). These latter are the newly poor. Defining the chronic poor as households that remain poor at the beginning and end of a period under consideration, one may see that chronic poverty affected 14 percent of the population, while 40 percent did not experience poverty in either year.

Figure 41. **Patterns of economic mobility, Armenia**



Source: Calculations based on Income and Living Conditions Surveys 2004, 2008, 2010, 2015.
Note: The data are based on the upper national poverty line.

In the second period, 2010–15, there was less poverty reduction. Economic growth had slowed following the global financial crisis of 2008–09 and because of difficult external conditions in the Russian Federation. However, there was still significant churning around the poverty line. Nearly a quarter of the population moved out of poverty, but almost half that share fell into poverty. At both ends of the period, 12 percent of the population remained in poverty, and over half the population remained out of poverty.

In both periods, 2004–08 and 2010–15, the chronic poor represented about an eighth of the population.[22] A significant share escapes poverty, even as many households fall back into poverty. About half the poor at the end of each period are comprised of households that were not poor at the start. These patterns highlight the opportunities and vulnerabilities of households relative to poverty.

The same analysis may be disaggregated by various characteristics of the head of the household to investigate how patterns of economic mobility might vary with location, education, or occupation.

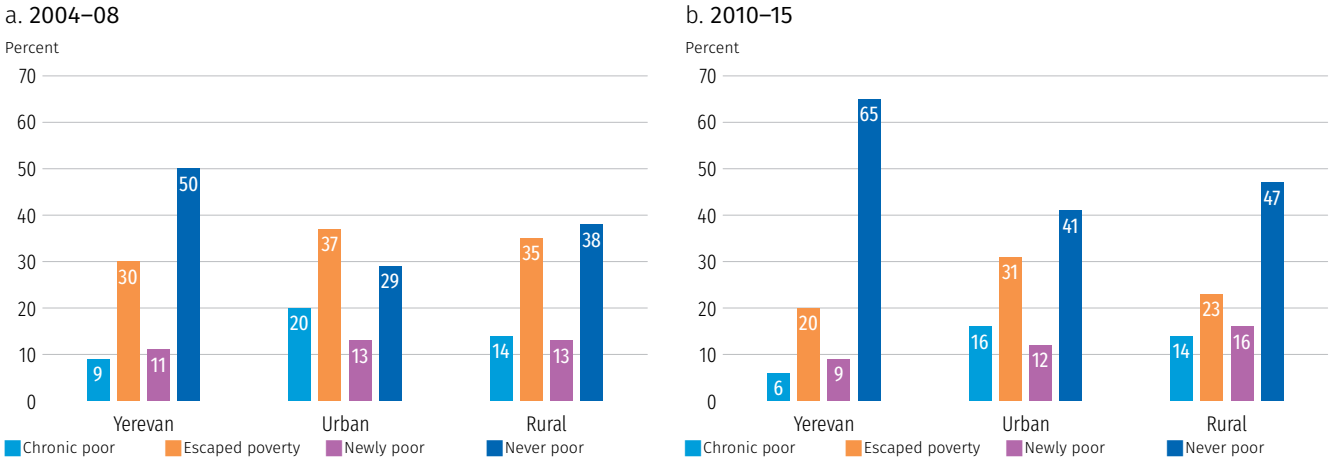
A churning similar to the one occurring at the national level is seen in Yerevan, urban areas other than Yerevan, and rural areas, highlighting the vulnerability of households (figure 42). While the share of the chronic poor is highest in urban areas outside Yerevan, the distribution of the chronic poor appears to be similar to the distribution of poor households in Armenia.

Households with higher educational attainment tend to experience less chronic poverty (figure 43, panel a). A larger share of households stay out of poverty, and a smaller share fall into poverty. This pattern does not differ across the two periods, suggesting that higher educational attainment

22 The literature uses the term chronic poor in different contexts. Here, chronic poor households refer to the group of the population that was living in poverty in the initial period and the final period under consideration (see Vakis, Rigolini, and Lucchetti 2016).

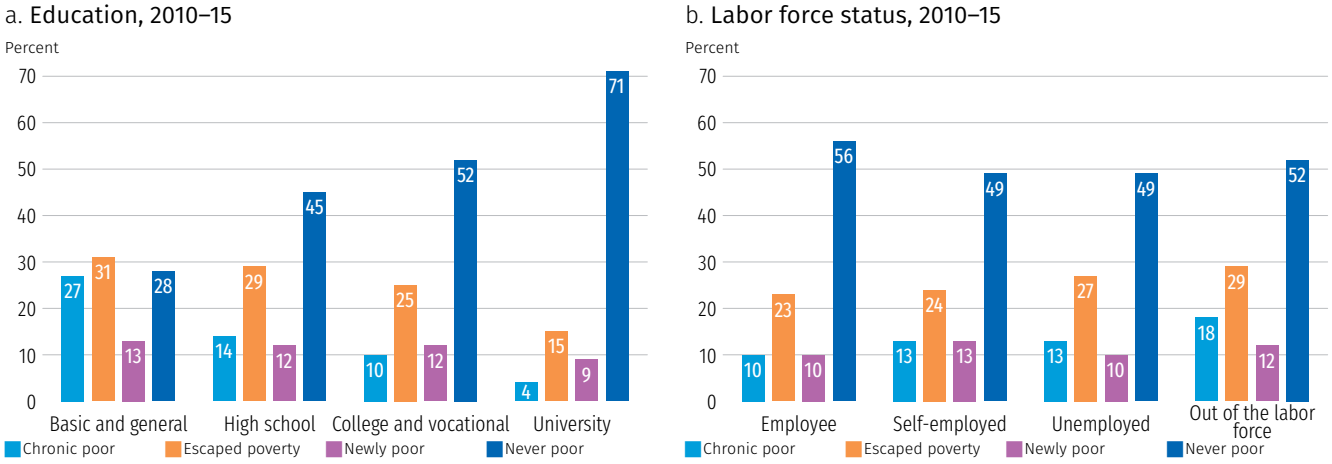
is associated with less poverty and less churning, and thus highlighting the role education plays in facilitating a sustainable path out of poverty.

Figure 42. **Patterns of economic mobility, Yerevan, other urban areas, and rural areas, Armenia**



Source: Calculations based on Income and Living Conditions Surveys 2004, 2008, 2010, and 2015.

Figure 43. **Links between economic mobility, education, and the labor force status of the household head, Armenia**

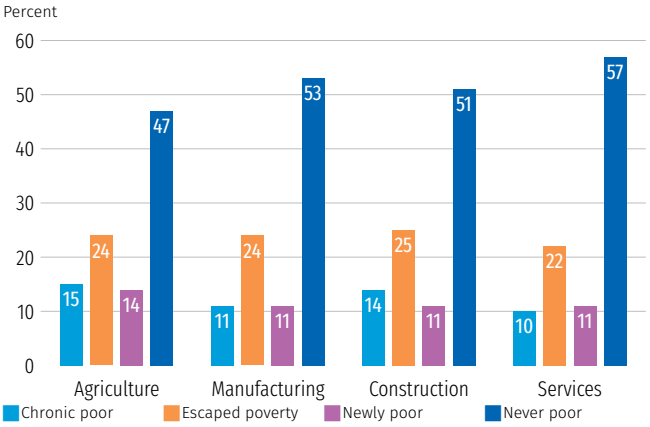


Source: Calculations based on Income and Living Conditions Surveys 2010 and 2015.

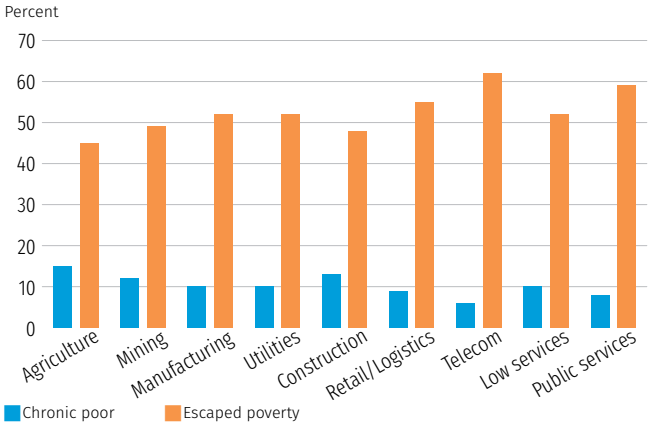
The share of households that are chronically poor is lower if the head of household is employed rather than out of the labor force (10.4 percent versus 17.9 percent) (figure 43, panel b). Moreover, the proportion of households that remained out of poverty in both periods is highest if the household head is employed. Mobility also varies by sector of employment (figure 44, panel a). The share of the chronic poor is highest if households are working in the agricultural sector (14.7 percent), but significantly lower in the service sector (9.5 percent). The collapse of the construction sector explains a relatively high share of the chronic poor in this sector (13.5 percent). Disaggregating the sectors of employment further, one may see that the share of the chronic poor is highest in sectors with low productivity, including agriculture and construction (figure 44, panel b), while the share of households that are nonpoor in both periods is highest in the high-productivity service sector, including telecommunication, finance, and insurance (figure 44, panel a).

Figure 44. **Patterns of economic mobility, by employment sector, Armenia, 2010–15**

a. Broad sector of employment



b. Sector of employment of poor households



Source: Calculations based on Income and Living Conditions Surveys 2010 and 2015.

Georgia

The period of interest in Georgia is 2009–15, which saw the poverty rate fall from 32 percent to 21 percent. Similar to Armenia, however, this fall masks significant churning. Figure 45 shows that nearly half the poor households in any year had not been in poverty two years earlier, and nearly a fifth of the nonpoor at any time fall into poverty within two years. This indicates that poor households can make temporary escapes from poverty, but find maintaining their position above the poverty line difficult.

Figure 45. **Distribution of the poor and nonpoor, by status in the previous period, Georgia, 2009–15**

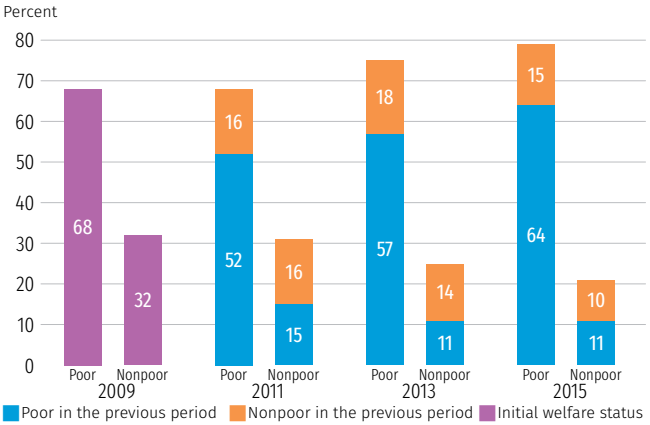
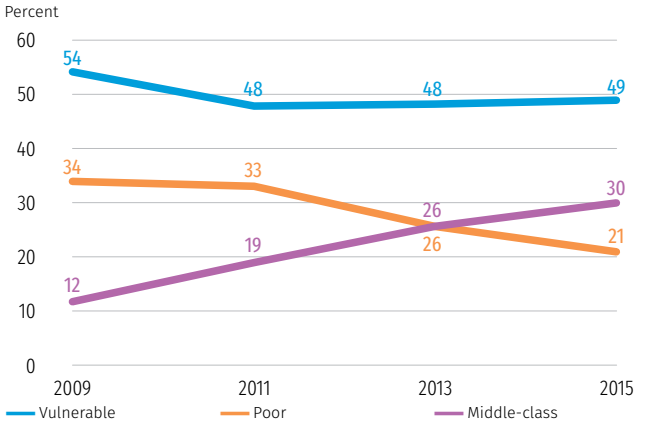


Figure 46. **The poor, the vulnerable, and the middle class, Georgia, 2009–15**



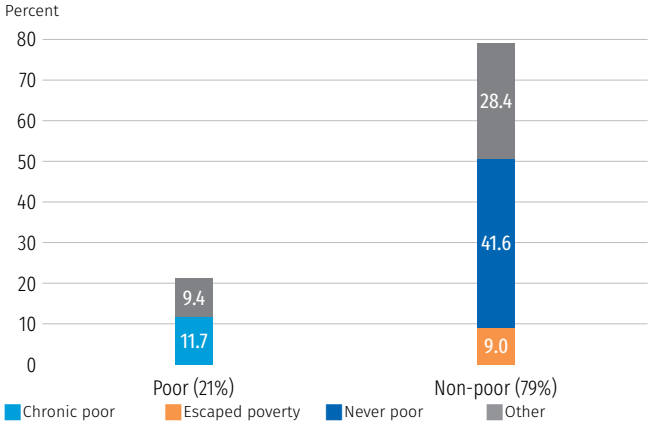
Source: Calculations based on the Welfare Monitoring Survey 2009, 2011, 2013, 2015 following the methodology of López-Calva and Ortiz-Juárez 2014.

Following López-Calva and Ortiz-Juárez (2014), a middle-class household is defined as a household that exhibits a probability of 10 percent or less of falling into poverty within two years, which translates into an income of at least GEL 257 a month at 2015 prices. The approach of López-Calva and Ortiz-Juárez (2014) is slightly modified in the definition of a vulnerable household, that is, a household exhibiting a probability higher than 10 percent of falling into poverty within the next four

years. A logistic regression is used to estimate the characteristics of households that fulfill these conditions, and households are classified accordingly. The results show that vulnerable households were the largest category, representing nearly half the population every year (figure 46). The middle class grew from 12 percent to 30 percent over the period, nearly mirroring the decline in poverty rates. These results, which have the advantage of a vulnerability framework, show a larger middle class than previous estimates based on the US$10 a day purchasing power parity poverty line. Those estimates find that the middle class grew from 4 percent in 2010 to 7 percent in 2015. These results suggest that there was a high degree of transitory poverty and a nascent, but expanding middle class.

The chronic poor are defined as households that were poor in 2015 and that were also poor in at least two of the three previous surveys, in 2009, 2011, and 2013. This definition recognizes as chronic poor those households that have only briefly exited poverty. By this measure, nearly 60 percent of the poor—around an eighth of all Georgians—were among the chronic poor in 2015 (figure 47). A group of households that escaped poverty is also defined. These are households that were poor in 2009 and 2011, but not in 2015. This group represents 9 percent of the population. Roughly 40 percent of the population were never poor, and the residual 38 percent were in other transition groups.

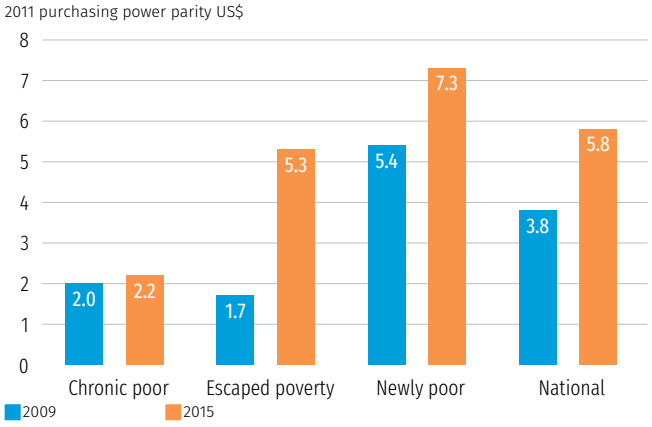
Figure 47. **Shades of poverty, Georgia, 2009-15**



Source: Calculations based on the Welfare Monitoring Survey 2009, 2011, 2013, 2015, following the methodology of López-Calva and Ortiz-Juárez 2014.
Note: The numbers below the bar represent the poor and nonpoor headcount, respectively.

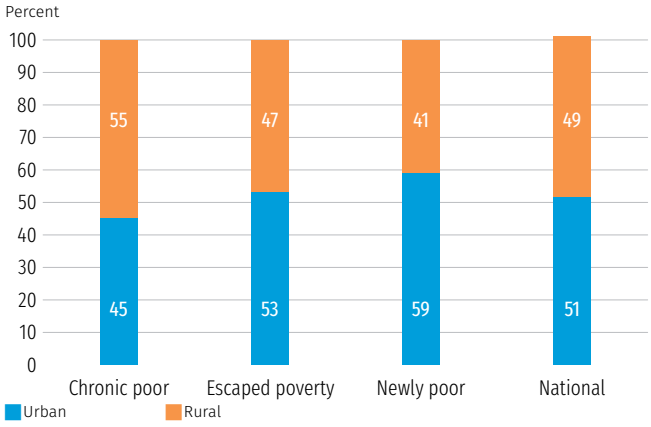
The characteristics of chronic poor households can then be compared with the characteristics of households that escaped poverty. First, per capita daily consumption grew among chronic poor households by only around 10 percent, compared with over 50 percent nationwide (figure 48). Households that escaped poverty experienced over 200 percent growth starting from a lower base than the chronic poor households. This suggests that the chronic poor are unable to take advantage of economic opportunities, as other groups have been doing. This warrants further investigation.

Figure 48. **Daily per capita consumption, by welfare status, Georgia, 2009 and 2015**



Source: Calculations based on the Welfare Monitoring Survey 2009, 2015.

Figure 49. **Welfare status, by place of residence, Georgia, 2015**



Second, chronic poverty is both an urban and a rural phenomenon (figure 49). More than 40 percent of the chronic poor are located in urban areas, over half in Tbilisi alone. This is similar to the proportion of the poor overall. Other groups, especially households never in poverty, are found in slightly greater numbers in urban areas. This suggests that the problems leading to chronic poverty occur in both urban and rural areas.

Third, educational attainment is higher among escapers than among the chronic poor, and the difference has widened over time (table 4). The widening is driven by young adults. The proportion of adults ages 18–30 with tertiary education grew from 20 percent in 2009 to around 40 percent in 2015. While tertiary education is not a perfect proxy for employment, the higher attainment shown by the escapers points to a gap that needs to be closed to provide greater income-generating opportunities to the chronic poor.

Table 4. **Educational attainment, by welfare status, Georgia, 2009–15**

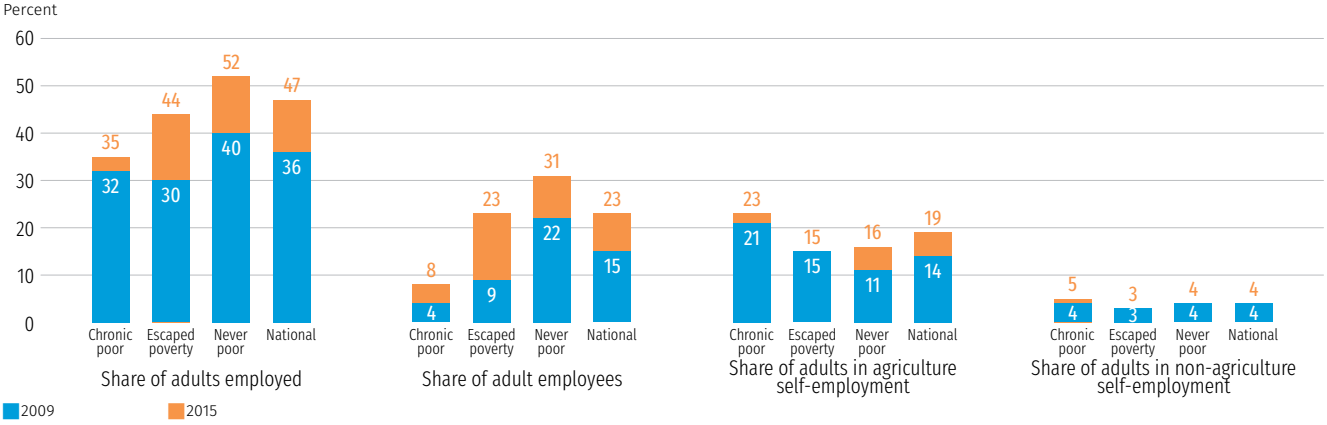
Share of adults with tertiary education

Year	*Chronic poor*	*Escaped poverty*	*Never poor*	*National*
2009	10.9%	20.8%	43.5%	30.4%
2015	10.6%	24.1%	42.8%	30.2%

Source: Calculations based on the Welfare Monitoring Survey 2009, 2015.

Fourth, the chronic poor are less likely to be employed and more likely to be active in the low-productivity agricultural sector. Only about a third of adults in chronically poor households were working in 2015, compared with 45 percent of the escapers and about half of all households nationwide (figure 50). Escaping households also saw a sharp increase from a lower base relative to chronic poor households in 2009. Adults in such households saw a nearly 15 percent increase in their employment rate, almost entirely driven by wage employees. Furthermore, a regression analysis (appendix A, page 98) indicates that the main characteristics associated with the transition from unemployment in 2009 to wage employment in 2015 revolved around men with higher educational attainment. Age also plays a meaningful role, signaling that new employment opportunities did not appear only among younger, more highly educated recent graduates, but across all age-groups. Residence in Tbilisi also seems to be important, though this is probably associated with the naturally low unemployment in rural areas caused by the large shares of the labor force that are self-employed on their own land.

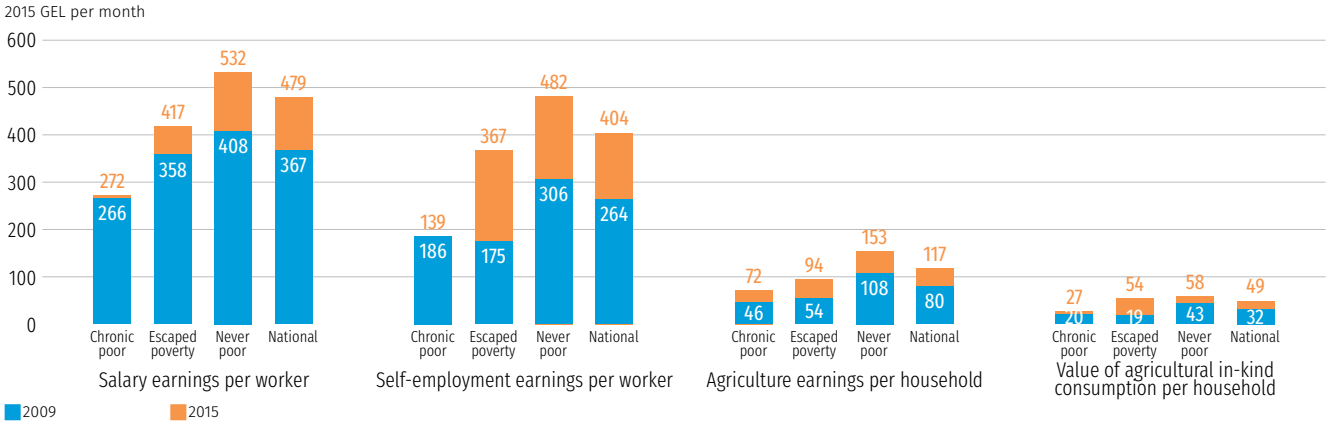
Figure 50. **Share of employment, by welfare status, Georgia, 2009 and 2015**



Source: Calculations based on the Welfare Monitoring Survey 2009, 2015.

Similarly, the chronic poor have seen the returns to their labor stagnate (figure 51). While wage salaries grew only marginally, earnings among the self-employed fell by 20 percent in real terms. In contrast, wages among households that escaped poverty grew by an average 15 percent, reinforcing earlier findings that inadequate benefits from the labor market hurt the chronically poor during this period.

Figure 51. **Average returns to assets, by worker and household, Georgia, 2009 and 2015**



Source: Calculations based on the Welfare Monitoring Survey 2009, 2015.
Note: Average earnings reported only for households with positive income in each category.

Income from transfers increased among all households between 2009 and 2015 (figure 52). The chronic poor benefited because of an increase in targeted social assistance coverage (figure 53). The government expanded social programs after the global financial crisis and again in 2013, and this translated into actual increases in household incomes. Similarly, the increase in noncontributory pensions benefited households across the entire welfare distribution, despite a roughly constant coverage rate of around 60 percent across different types of households and over time.

Figure 52. **Average transfer, by beneficiary household, Georgia, 2009 and 2015**

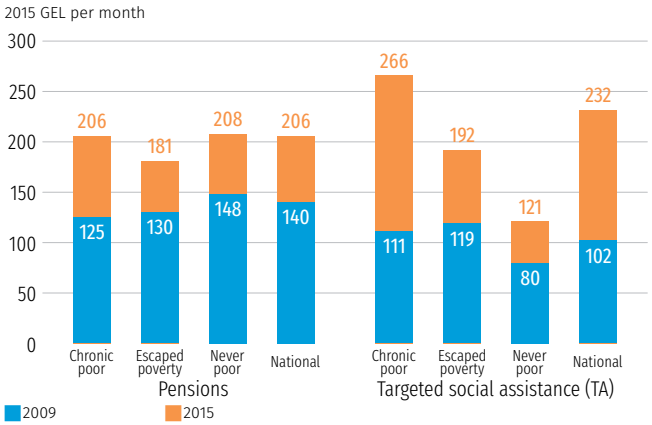
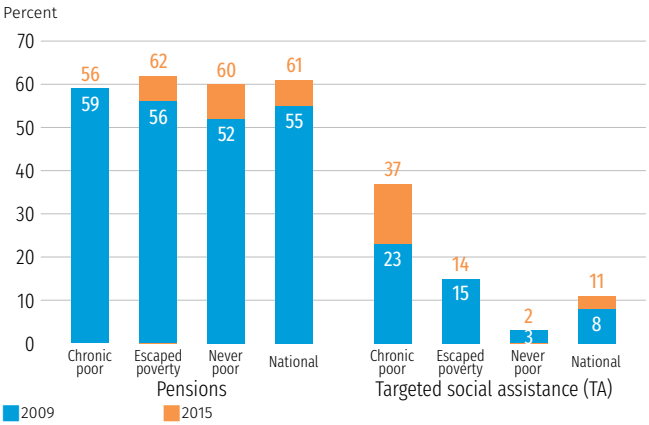


Figure 53. **Coverage of selected transfers, by welfare status, Georgia, 2009 and 2015**

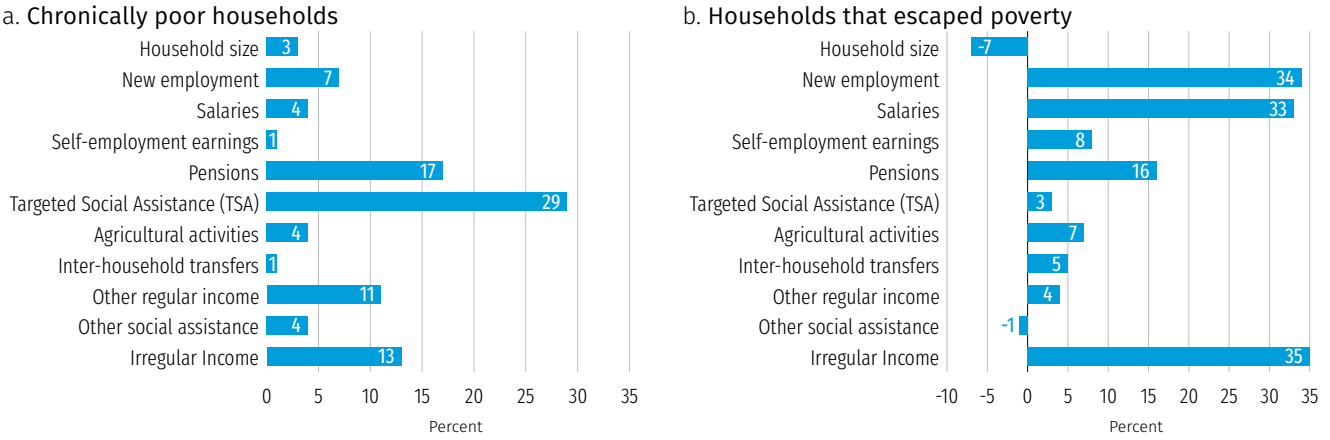


Source: Calculations based on the Welfare Monitoring Survey 2009, 2015.

The increase in transfer income had an important role in complementing the income of the chronic poor, but was insufficient to lift them out of poverty because of the small size of the transfers. Better opportunities in the labor market were the key source of income growth among the households that escaped poverty (Azevedo, Sanfelice, and Nguyen 2012). While household income rose among both the

chronic poor and escapers, the growth was led by social assistance among the chronic poor and by labor earnings among escapers (figure 54). The income of the chronic poor almost doubled between 2009 and 2015 despite stagnating consumption. The main drivers were social transfers (targeted social assistance and pensions). Labor markets were less significant. Household size even had a negative impact. In contrast, the escapers realized more growth in income (135 percent), which translated into more than proportional consumption growth (200 percent). New employment opportunities, higher salaries in existing jobs, and the income from temporary jobs all contributed to the income growth among escapers.

Figure 54. **Contributions to household income growth, Georgia, 2009–15**



Source: Calculations based on the Welfare Monitoring Survey 2009, 2015 and the components microdecomposition method described by Azevedo, Sanfelice, and Nguyen 2012.
Note: Bars sum the total household income growth in 2009–15.

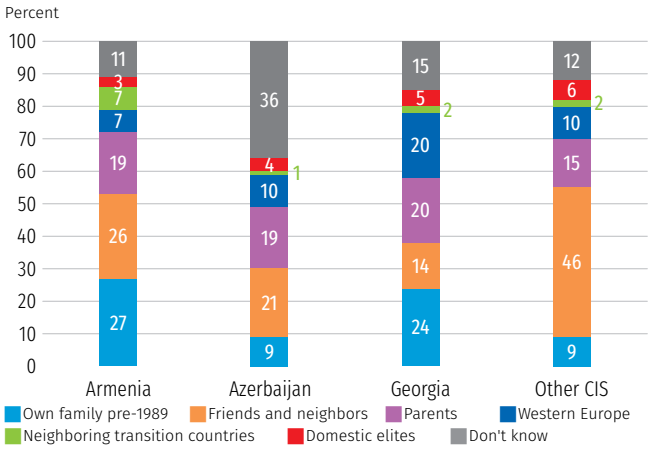
Social mobility

Perceptions

A substantial share of the population increasingly believes that their countries are experiencing falling standards of living and rising inequality. However, gauged by objective measures, welfare has expanded, and, despite no clear overall trend, inequality appears to be narrowing in most countries in the region (EBRD 2016). This apparent disconnect between what is perceived and indicators is a puzzle.

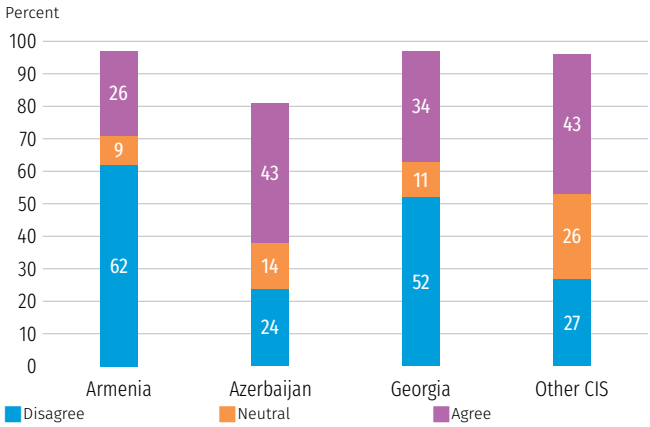
Illustrating perceptions of social or intergenerational mobility in the South Caucasus, figure 55 shows that around a quarter of the population in Armenia and Georgia evaluate their lives today in comparison with their families before the transition (pre-1989) at a higher rate than the average 9 percent in other transition countries. In Azerbaijan, the rate is at the overall average of 9 percent, but it is difficult to interpret because of substantial nonresponse. Similarly, nearly a fifth of respondents in all three countries used the lives of their parents at a comparable age as the benchmark. This share is slightly higher than the corresponding share in other transition countries. Standards of living in Western Europe were used as a benchmark by about a fifth of Georgians, but by fewer than half this share in other countries.

Figure 55. **Responses to the question "When thinking about your current economic situation, what is your benchmark?"**



Source: Data of the 2016 round, LiTS (Life in Transition Survey) (database), European Bank for Reconstruction and Development, London, http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html.

Figure 56. **Responses to the statement "I have done better in life than my parents"**



Source: Data of the 2016 round, LiTS (Life in Transition Survey) (database), European Bank for Reconstruction and Development, London, http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html.
Note: "Don't know" and "Not applicable" are not shown. Agreement and strong agreement are grouped into "Agree." CIS = Commonwealth of Independent States.

With a keen eye to the past, respondents in the South Caucasus are evaluating whether they have done better than their parents. Majorities in Armenia (62 percent) and Georgia (52 percent) believe they are doing poorly relative to their parents; these are much higher than the shares in other transition countries (27 percent) (figure 56). The share in Azerbaijan is similar to the share in other countries of the Commonwealth of Independent States, though the substantial nonresponse makes interpretation difficult.

Social mobility in educational attainment

In the analysis of social mobility, income or earnings cannot be used because data that match parental and child earnings are unavailable for most countries, including the countries of the South Caucasus. Employment occupation must also be rejected, despite the strong links to social status, because the relationship between the social status of a job and the pay is difficult to quantify. The focus is therefore education. The Life in Transition Survey collects data on the educational attainment of respondents and the mothers and fathers of respondents. This information is grouped into four broad categories, and the sample is restricted to adults ages 24 or more to remove any bias deriving from the inclusion of students who are still obtaining education. Table 5 offers a summary of the data available on the three countries. The largest proportion of respondents in each country has achieved secondary education across both generations, and overall educational attainment has improved among the younger generation.

Table 5. **Educational attainment among parents and children, South Caucasus**

Armenia

		Children				
		Primary or less	*Secondary*	*Postsecondary/ND*	*Bachelor or above*	*Total*
Parents	Primary or less	57	61	40	9	167
	Secondary	9	335	137	65	547
	Postsecondary/ND	4	92	161	115	372
	Bachelor or above	4	45	49	184	282
	Total	74	532	388	374	1368

Azerbaijan

		Children				
		Primary or less	*Secondary*	*Postsecondary/ND*	*Bachelor or above*	*Total*
Parents	Primary or less	0	2	0	0	2
	Secondary	0	647	78	49	774
	Postsecondary/ND	0	77	145	21	243
	Bachelor or above	0	20	10	42	72
	Total	0	746	233	112	1091

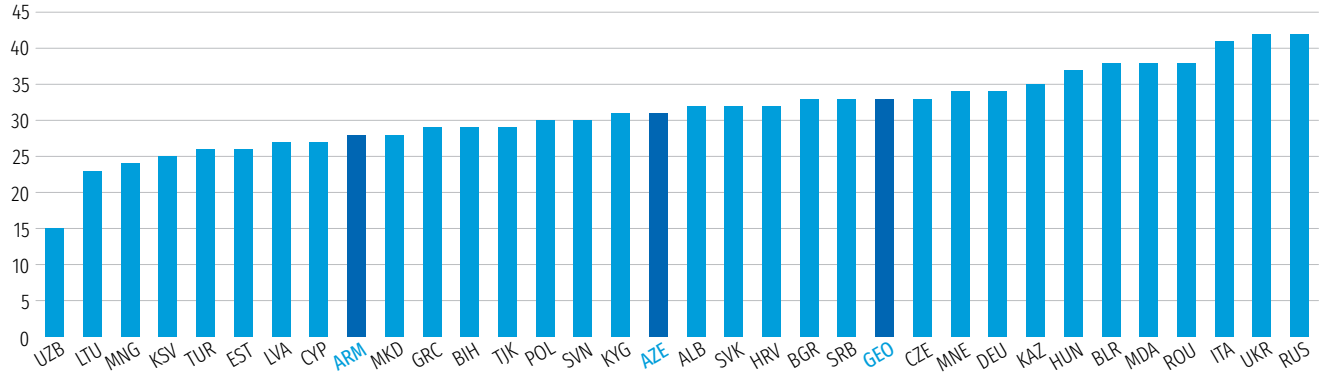
Georgia

		Children				
		Primary or less	*Secondary*	*Postsecondary/ND*	*Bachelor or above*	*Total*
Parents	Primary or less	27	64	23	3	117
	Secondary	6	422	162	107	698
	Postsecondary/ND	4	85	126	81	296
	Bachelor or above	0	33	47	206	286
	Total	37	604	358	397	1396

Source: 2016 round, LiTS (Life in Transition Survey) (database), European Bank for Reconstruction and Development, London, http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html.
Note: ND = nondiploma courses. The sample was restricted to individuals ages 24 or more.

To estimate mobility, the Altham statistic is applied. This compares the degree of association between the rows and columns of a given matrix and a matrix of perfect mobility (appendix B, page 99). The measure may be interpreted as the distance from a perfectly mobile society. Countries with higher values of the statistic exhibit less mobility. In Europe and Central Asia, Russia and Ukraine are furthest from perfect mobility, while Lithuania and Uzbekistan show the weakest association between parental and child education (figure 57). The South Caucasus is roughly in the middle. Armenia has the highest mobility, and Georgia the lowest in the subregion. The actual difference in the value of the Altham statistic between these countries is not large.

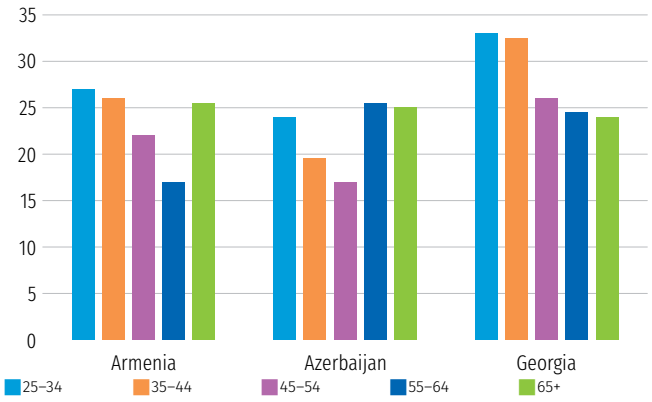
Figure 57. **The Altham statistic on intergenerational mobility, Europe and Central Asia**



Source: Tiwari et al. 2018.

Analyzing the Altham statistic by age cohort offers an understanding of how mobility may have changed over time. Figure 58 shows five decadal cohorts, which, at the time of transition, would have been roughly ages 0–9, 10–19, 20–29, 30–39 and 40+, respectively. The youngest cohorts might be expected to be the most highly affected by any societal changes, and one may indeed notice a clear pattern of increase in the distance from perfect mobility by age cohort. This pattern holds for all the countries, notwithstanding an improvement among the oldest cohort in Armenia and the two oldest in Azerbaijan.

Figure 58. **Distance from perfect mobility, by age cohort, South Caucasus**

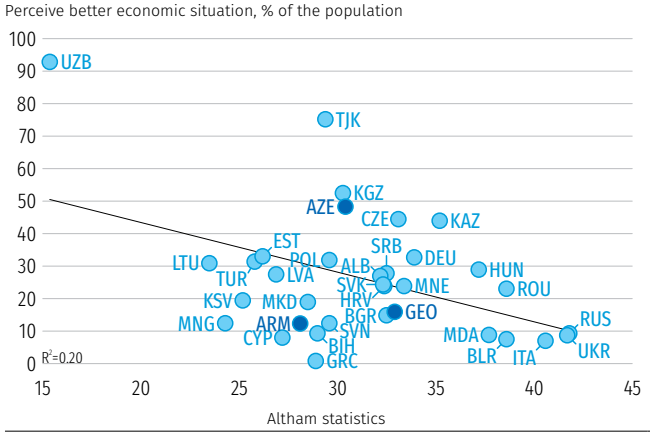


Source: Tiwari et al. 2018.

Figure 59 shows that, in terms of broad bivariate correlations across Europe and Central Asia, higher intergenerational mobility appears to be positively correlated with favorable respondent assessments of the current economic situation, life satisfaction, overall well-being relative to parents, and the outlook for the future of children. To the extent that greater mobility signals a fairer society in which the observed inequalities arise because of effort or luck (as opposed to birth circumstances), it would be associated with a lower preference for redistribution (Alesina and Angeletos 2005). Perceived mobility may be different from actual experienced mobility, however. Conditional on actual mobility, the preferences for redistribution may be high if perceived mobility is low.

Figure 59. **Perceptions and mobility, some bivariate plots, South Caucasus**

a. Higher mobility, better perception of economic situation



b. Higher mobility, higher life satisfaction

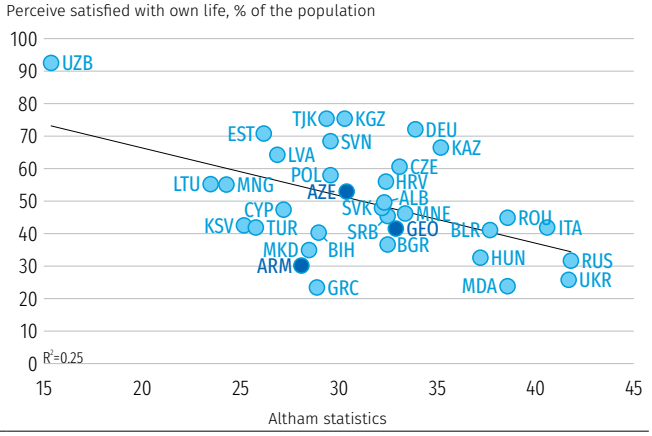
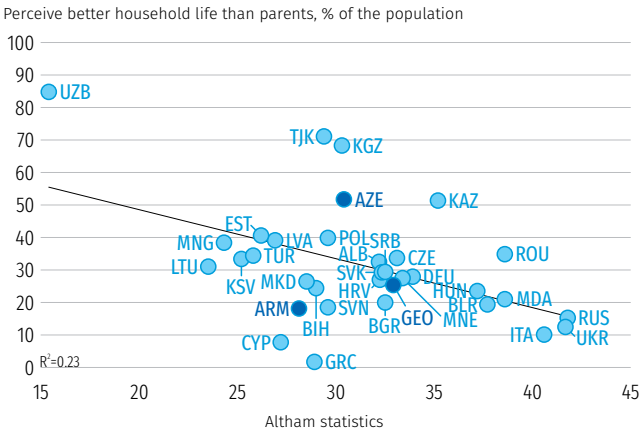
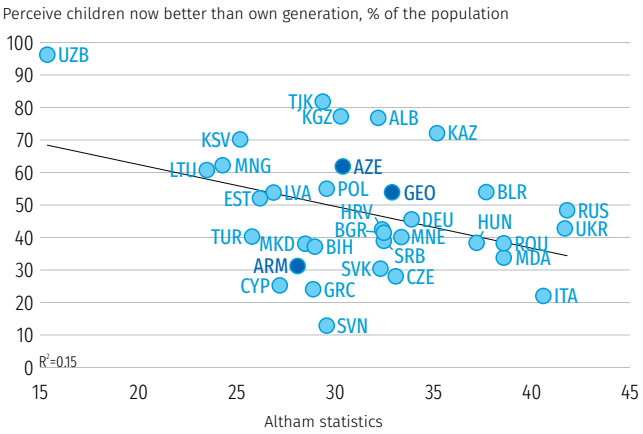


Figure 59. **Perceptions and mobility, some bivariate plots, South Caucasus** (continued)

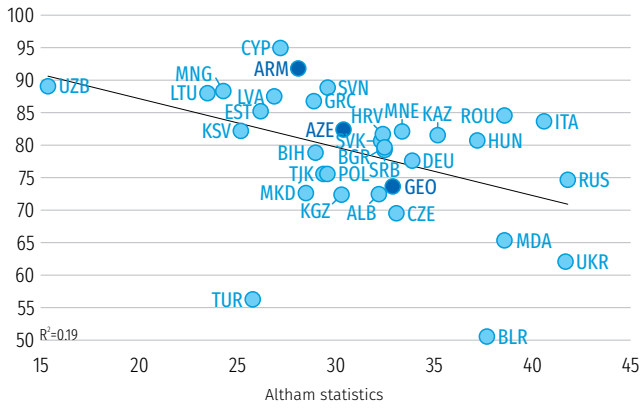
c. Higher mobility, perceive better household life than parents



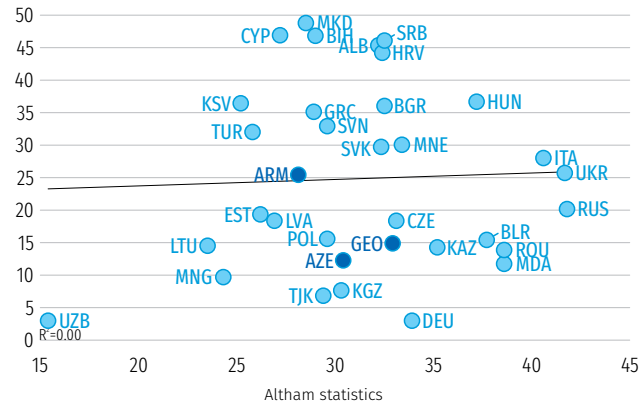
d. Higher mobility, think children today better than earlier generation



e. Higher mobility, higher demand for redistribution



f. Higher mobility, lower perception of unfairness?



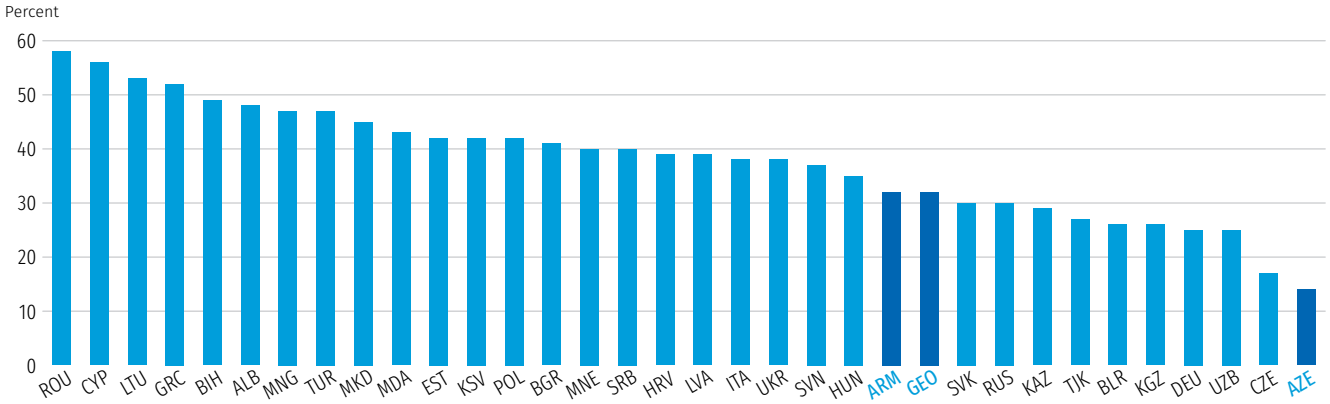
Source: Calculations based on data of the 2016 round, LiTS (Life in Transition Survey) (database), European Bank for Reconstruction and Development, London, http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html.

Figure 60 analyzes the direction of social mobility by highlighting the proportion of respondents who have strictly better or worse education than their parents. There are caveats, though. Because educational attainment is bounded at the top, countries starting out with high average educational attainment may exhibit limited upward mobility. In addition, lower educational attainment need not translate to lower welfare or even lower economic returns. There may well be markets in which bachelor's degrees earn more than PhDs.

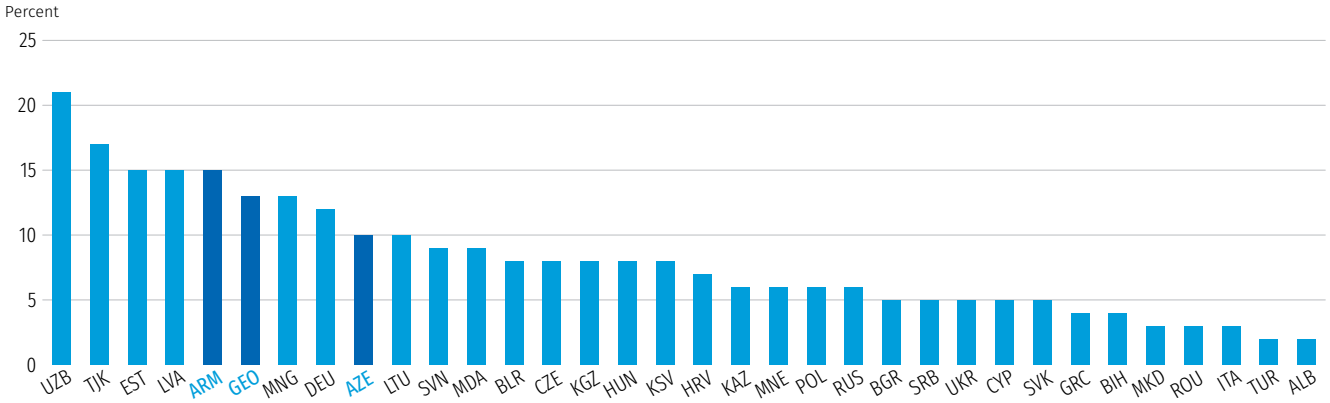
The prospects of the countries of the South Caucasus in upward mobility are among the lowest (figure 60, panel a). This is especially the case of Azerbaijan. The subregion's prospects in downward mobility, meanwhile, are among the highest, and, in this, Armenia takes the lead (figure 60, panel b). These results suggest there is considerable churning—upward as well as downward mobility—in educational attainment across generations in these countries.

Figure 60. **Prospects for mobility relative to parents, South Caucasus**

a. Strictly higher educational attainment than parents



b. Strictly lower educational attainment than parents

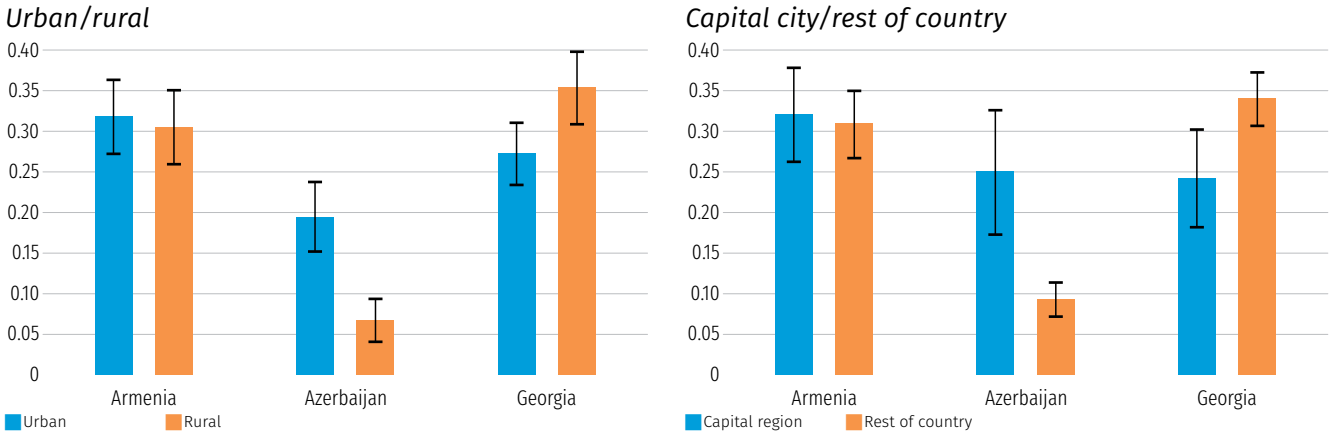


Source: Tiwari et al. 2018.

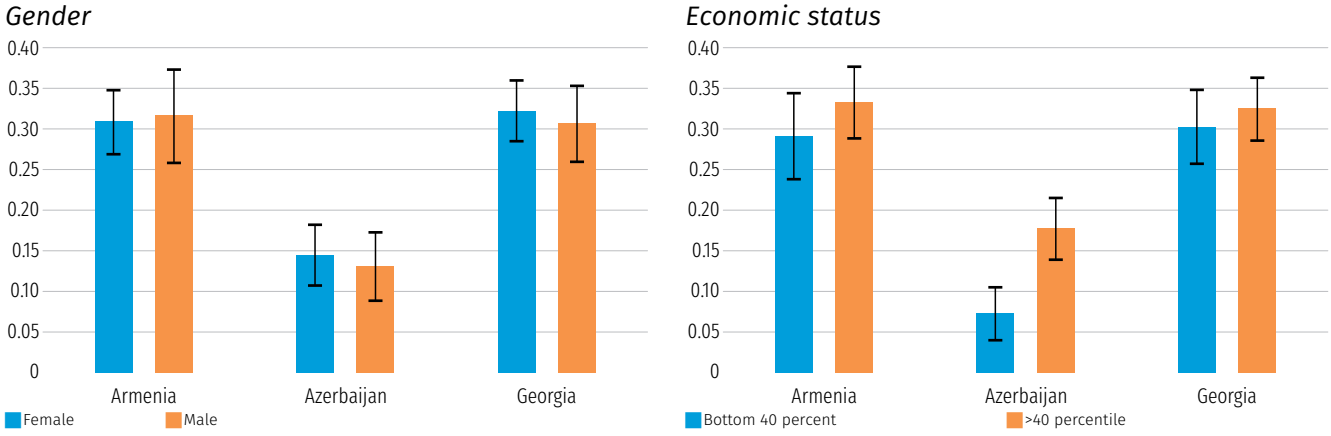
Figure 61 analyzes how the prospects for upward mobility vary by characteristics across the three countries. Spatially, while all three countries exhibit substantial disparities in welfare outcomes and poverty rates, the pattern in upward mobility is less clear. In Armenia, there is no statistically significant difference across the capital and urban and rural areas. In contrast, in Azerbaijan, urban areas and the capital have obviously witnessed greater mobility relative to rural economic regions and other economic regions of the country. In Georgia, rural areas and regions other than the capital show greater upward mobility. This suggests there is some degree of catching up in educational attainment in regions that are likely to have had lower attainment initially. There exists no statistically significant difference in upward mobility among men and women. Similarly, only in Azerbaijan is there a statistically significant difference between individuals in the top 60 and the bottom 40 percent of the income distribution.

Figure 61. **Prospects for upward mobility, South Caucasus**

a. Urban vs. rural areas and capital city vs. rest of the country



b. Gender and economic status



Source: Tiwari et al. 2018.

Key takeaways for each country

Armenia

- *Perceptions of economic mobility among Armenians are negative.* At the time of the interviews, 66 percent of the population believed their situation was worse than four years previously. These perceptions do not necessarily reflect poverty trends.

- *Poverty has declined, but households remain vulnerable.* Poverty dropped significantly during episodes of high growth. In 2004–08, the poverty rate dropped 26 percentage points. Churning around the poverty line reflects the significant share of households that escaped poverty, but fell back into poverty. About half the poor at the end of these periods were newly-poor.

- *The chronic poor are concentrated in secondary cities.* The chronic poor represented an eighth of the population during the high-growth periods. Chronic poverty was highest in urban areas other than Yerevan.

- *Human capital accumulation, employment opportunities, and sectoral productivity are associated with sustainable poverty reduction.* Households with higher educational attainment are less likely to be chronically poor or to fall back into poverty. Employment of the household head is associated with less poverty and vulnerability. Chronic poverty is highest in low-productivity sectors (including agriculture and construction). The high-productivity service sectors tend to keep households permanently out of poverty.

- *Social mobility shows mixed results.* Armenia performs well in social mobility. Educational attainment among the younger generation is only weakly associated with parental educational attainment, though there is also a relatively high probability that one may attain strictly less education than one's parents.

Azerbaijan

- *Data limitations hinder the analysis of economic and social mobility in Azerbaijan.*

- *Some evidence suggests that social mobility is low.* Azerbaijanis exhibit a low probability of surpassing the educational attainment of their parents. Urban areas and the capital have witnessed greater social mobility relative to rural areas.

Georgia

- *People perceive that social and economic mobility is trending downward in Georgia.* At the time of the interviews, over half of Georgians believed they were doing poorly relative to their parents and their own situation four years earlier. However, these perceptions are not entirely consonant with the overall pace of poverty reduction.

- *Poverty has decreased, but households remain vulnerable.* During the growth period, 2009–15, the poverty rate fell from 32 percent to 21 percent, and a nascent middle class grew. But there was significant churning. Households escaped poverty temporarily, but less than 10 percent of the population escaped sustainably. And nearly half the population remains vulnerable to poverty.

- *Chronic poverty is a rural and urban phenomenon.* The chronic poor represent an eighth of Georgians (2015) and live in both rural and urban areas. Tbilisi accounts for over 20 percent of the chronic poor.

- *Job opportunities and educational attainment were key drivers of sustainable poverty reduction.* Escaping poverty was correlated with human capital accumulation, increased employment, and higher salaries. The chronic poor were more often economically inactive or employed in low-productivity sectors, such as agriculture. Their returns to labor stagnated, and their consumption did not increase proportionally to income growth.

- *Pensions and social assistance effectively contributed to increasing household incomes.* Noncontributory pensions benefited households across income levels. The chronic poor benefited particularly from targeted social assistance, though transfers were insufficient to overcome poverty.

- *Georgia maintains low social mobility.* The educational attainment of Georgians is closely linked with the educational attainment of their parents.

Chapter 3. Inequalities of opportunity

Chapter 3. Inequalities of opportunity

Main findings[24]

- Inequality of opportunities in the South Caucasus prevents the efficient and fair allocation of resources in labor markets and influences the dissatisfaction and preferences of the population for redistribution. In the three countries of the South Caucasus, Armenia, Azerbaijan, and Georgia, there is substantial inequality in the access to the few good jobs, that is, formal sector jobs involving work for at least 20 hours a week and such work under contract or with tenure.
- The access to and availability of good jobs are limited in the South Caucasus relative to other parts of Europe and Central Asia. Though fair components of inequality, such as educational attainment and work experience, are relevant, they may be relatively less significant than unfair factors—characteristics and conditions that are beyond the control of individuals—in finding good jobs in the South Caucasus. Connections and parental educational attainment are key determinants of access to good jobs. Armenia and Azerbaijan stand out for the significant share of inequality in access to good jobs associated with gender gaps.
- Unequal opportunities also arise through inequality in access to basic human capital inputs. Learning performance tends to be poor and dependent on the social and economic circumstances of children. The coverage rates of basic human capital inputs, including education, water, and sanitation, are generally high in the South Caucasus. However, spatial divides, for example, between urban and rural areas or across provinces or subnational regions, and divides across economic status may affect the provision of basic inputs.

Introduction

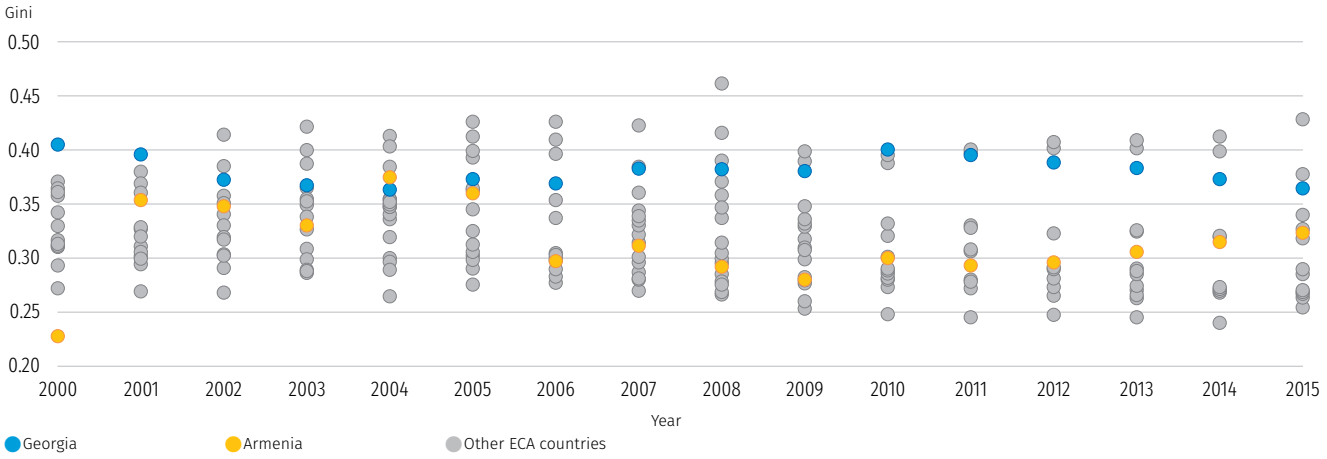
The previous chapter discussed how, in the countries of the South Caucasus, perceptions of mobility tend to differ from the picture of social and economic mobility derived from objective measures. For example, perceptions that inequality is substantial in the South Caucasus are widespread despite the modest measured inequality relative to other countries and a trend toward constant or falling inequality (EBRD 2016) (figures 62 and 63).

Perceptions of inequality are often more closely related to voting behavior, public policy, or preferences for redistribution than to measures of inequality (Engelhardt and Wagener 2014; Niehues 2014). This holds in Europe and Central Asia as well (see figure 63). The net share of people agreeing

23 This chapter is based on Fuchs, Tiwari, and Shidiq (2018).

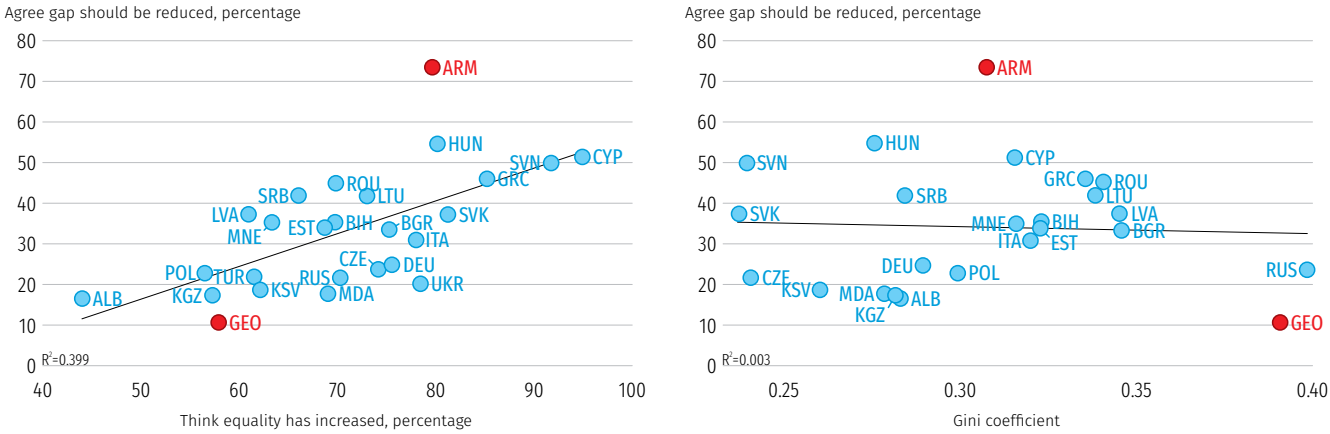
that the gap between the rich and the poor should be reduced correlates much more with the net share of people who believe inequality has increased than with the Gini coefficient. Armenia and Georgia stand out in the region as the countries with the largest and smallest preferences in favor of redistribution. Over 70 percent of Armenians, but only around 10 percent of Georgians believe the gap between rich and poor must be reduced despite the fact that 75 percent of Armenians and 60 percent of Georgians believe that inequality has widened.

Figure 62. **Gini coefficients, Europe and Central Asia, 2000–15**



Source: World Bank calculations.

Figure 63. **Inequality, perceptions, and the demand for redistribution, Europe and Central Asia**



Source: Adapted from Bussolo and Lebrand 2017.

What might explain why people in the South Caucasus perceive inequality widening? Rather than inequality in outcomes, inequality in opportunities and a lack of transparency in the allocation of resources may be creating dissatisfaction. In Armenia, for example, the demand for redistribution probably arises from the gap between the poor and the middle class and the gap between the poor and the oligarchs, who accumulated incredible wealth during the excessive and uncontrollable privatization of the early 1990s. Governance problems generated by unequal market access, a lack of competition, and inadequate regulation created an environment in which ordinary people could not do well even with a good education and substantial effort. The social contract collapsed as the population realized this. Similar sentiments are likely relevant in other areas of the Caucasus as well because of the imperfect political and economic transition during the 1990s.

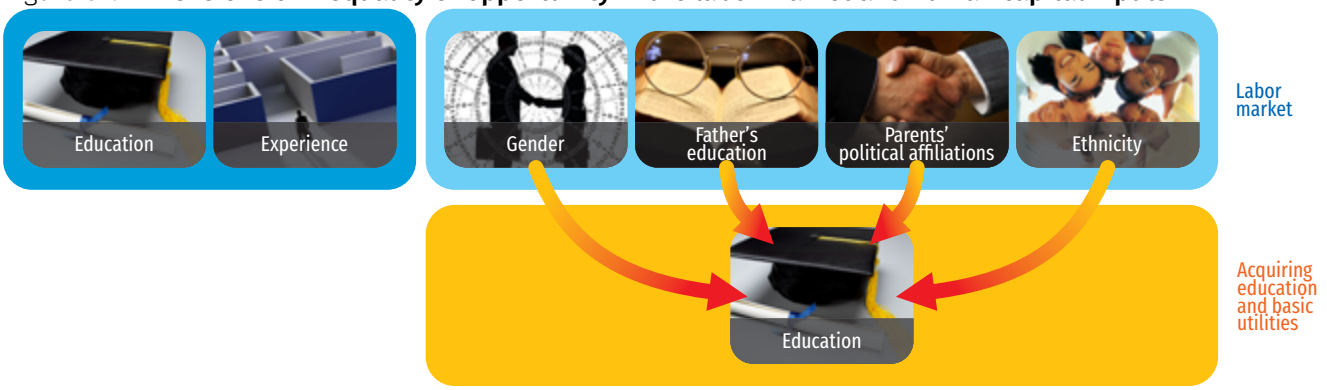
This chapter investigates inequality of opportunity within this background. According to the literature, inequality may be caused either by differences in effort, choice, or skills, or by differences in circumstances beyond the control of individuals, such as ethnicity or gender (Barros et al. 2009; Ferreira and Gignoux 2011). The second type—inequality of opportunity based on characteristics over which individuals have no control—is considered undesirable, and reducing it should have universal appeal. This chapter focuses on labor markets because the ability of individuals to obtain jobs based on their skills and work experience irrespective of their circumstances is critical to economic mobility.

Methodology

The analysis relies on data from the 2016 round of the Life in Transition Surveys, which covered 51,000 households in 34 countries and collected socioeconomic data among respondents as well as the perceptions of the respondents on various aspects of their lives (EBRD 2016). As a first step, the chapter analyzes perceptions of equality of opportunity and then describes a quantitative analysis of inequality of opportunity in the labor market, relying mainly on the human opportunity index (HOI) framework developed by Barros et al. (2009, 2010).

The methodology relies on two measures to gauge the perceptions on inequality of opportunity. The first is a measure of fairness, that is, a measure of the perceived role of hard work, skill, and effort as a means to achieve one's life goals and success. The second is a measure of unfairness, that is, a measure of people's perceptions about the role of connections and contact networks in securing jobs in the public sector or the private sector.

Figure 64. **Dimensions of inequality of opportunity in the labor market and human capital inputs**



Source: Fuchs, Tiwari, and Shidiq 2018.

The chapter uses the HOI framework to quantify the inequality of opportunity in labor markets and in human capital inputs. The HOI measures the incidence of a particular characteristic in a population and adjusts this measurement for differences in the prevalence of the characteristic across population subgroups. For example, the HOI might capture the share of children with access to education and compute a penalty factor that lowers the index the more educational access varies across population subgroups. Intuition might suggest that all children deserve access. So, the higher the average coverage of education, the better, and the more birth circumstances influence coverage,

the worse. The methodology is described in appendix C on page 100. The extent of unfair inequality is then analyzed, for instance, the extent to which circumstances beyond the control of individuals, such as gender, ethnicity, or parental educational attainment and parental political affiliation, affect access to the labor market and to human capital. Figure 64 presents a schematic representation.

The labor market

The index has been adapted to measure inequality of opportunity in the labor market. First, it is applied to employment in good jobs, and, second, the normative emphasis typically found in the HOI literature is dropped, especially in the case of children (see below). The focus is on good jobs because all jobs are not equal. People working at jobs because they have no other choice are distinctly less well off than people who might not be currently working because they are able to wait for better options. Similarly, the focus is on inequality in good jobs. It is difficult to define precisely the characteristics of a job that make it good, and these characteristics likely vary by context. For instance, good jobs in agrarian societies may involve work in urban areas well connected to global markets. Women may find jobs that enhance their domestic decision making particularly valuable in some societies. In fragile or conflict-affected societies, social cohesion might be maintained by jobs that are perceived as fair (World Bank 2012a). Reflecting the breadth of the definition, the International Labour Organization defines decent work as follows:

> *work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in decisions that affect their lives, and equality of opportunity and treatment for all women and men.*[24]

Hence, in this chapter, the good jobs are defined as those meeting three criteria: they provide more than 20 hours of work a week; they provide salaried work through a contract; and they provide some measure of tenure. These are strong assumptions. They posit that everyone, given the opportunity, would like to work at a full-time salaried job with tenure. People may prefer part-time work or even temporary unemployment in some situations, and the self-employed may have better arrangements and incomes than salaried employees. However, the data do not allow for such fine-grained distinctions, and, accordingly, individuals are classified among those people without good jobs if they are in the labor market and unemployed or employed in jobs that do not meet the three criteria above.

The second adaptation made to the HOI to use it for the labor market is to drop the normative emphasis. When it is applied to basic services for children, the HOI reflects an intuition that every child deserves education or sanitation. In a labor market, however, a certain amount of inequality is inherent because outcomes reflect accumulated opportunities, effort, and choices. The normative emphasis of the HOI is therefore dropped, and the focus shifts to cover only the part of inequality attributable to circumstances beyond individual control. Gender, ethnicity, parental educational attainment, and parental political affiliation are taken as representative of these circumstances.[25]

24 See "Decent Work," International Labour Organization, Geneva, https://www.ilo.org/global/topics/decent-work/lang--en/index.htm.

25 Parental affiliation with the Communist Party can be considered an unfair affiliation, especially among people in older birth cohorts who entered the labor market during the communist era. It may also represent an unfair disadvantage among people who entered the labor market in the first years after the collapse of the Soviet Union. However, social status likely persists in the aftermath of a political crisis, especially a crisis that deepens labor market imperfections. Another possibility is that parents affiliated with the Communist Party could simply have been more highly motivated because the party monopolized the opportunities for upward social mobility.

Human capital inputs

Although inequalities generated by education may be regarded as fair, this may not be the case if there are inequalities in access to education during childhood. The lack of other basic services at an early stage in life may also affect human capital formation in individuals and therefore labor market access later on. To examine this issue, inequality in access to quality education is examined as well as access to running water and sanitation among children ages 16 or younger. The HOI is used in the form more commonly found in the literature. In addition to the four circumstances used for the labor market, that is, gender, ethnicity, parental education, and parental political affiliation, the following are added: number of children ages 16 or younger, gender of the household head, gender of the child, quintile of household consumption, and location of the household, including urban or rural area and province or region.

Perceptions

Most people in the South Caucasus believe that one's hard work and effort play a greater role than political connections in achieving success in life. Less than a quarter of people in each of the three countries believe political connections are the most important vehicle for success (figure 65, panel a). In contrast, nearly two-thirds of Armenians and three-fourths of Azerbaijanis and Georgians regard hard work, effort, skills, and intelligence as the most important factors in achieving success, suggesting that people in the South Caucasus consider society fair in terms of upward mobility or achieving success in life (figure 65, panel b).

However, the perceived fairness in the access to the labor market is mixed in the South Caucasus. Among Armenians, 83 percent said they believe contacts are essential or important in acquiring a good government job. This was the highest share among the 34 countries surveyed. Only around half of Azerbaijanis and Georgians thought contacts were key. This was well below or close to the average among the 34 countries (figure 66, panel a).

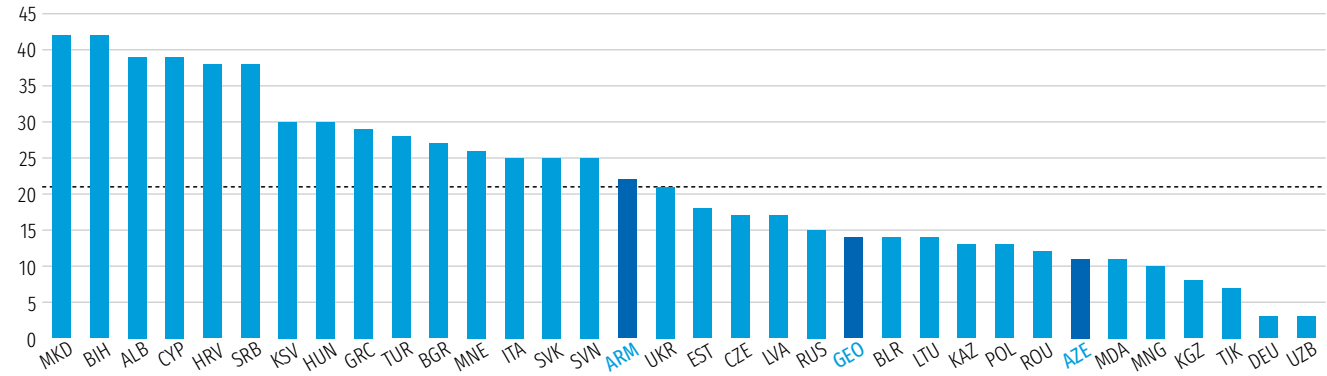
A similar pattern emerges in the case of the perceived role of connections in obtaining a good job in the private sector, although the importance of connections is generally considered less in the private sector than in the government (figure 66, panel b). These negative perceptions supply an approximate indicator of inequality of opportunities in the labor market in the South Caucasus.

There appears to be no correlation between the net share of people who think the gap between the rich and the poor should be reduced and the net share of people who perceive that society is fair overall. However, there is a moderate positive correlation between people's redistributive preferences and the belief that connections are important in landing either a public sector or a private sector job (figure 67). This suggests that the demand for redistribution, an indicator of perceived unfairness, is sensitive to perceived opportunities to participate in the labor market.

Figure 65. **Perceived role of connections and effort in achieving success in life, Europe and Central Asia, 2015**

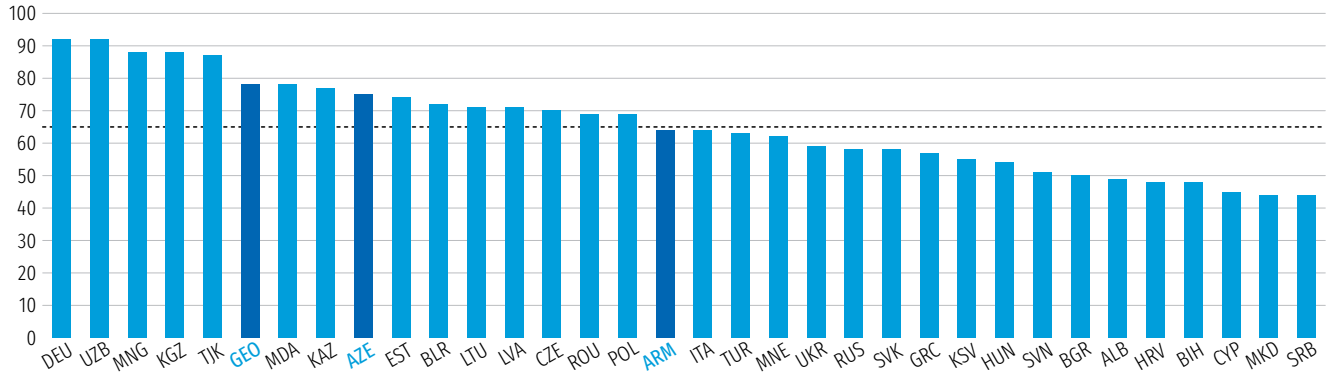
a. Perceived role of political connections in getting ahead in life

% of the population reporting as most important factor



b. Perceived role of effort and skills in achieving success

% of the population reporting as most important factor



Source: Fuchs, Tiwari, and Shidiq 2018.

Figure 66. **Perceived role of connections in obtaining jobs, Europe and Central Asia, 2015**

a. Government jobs

% of the population reporting "essential" or "very important"

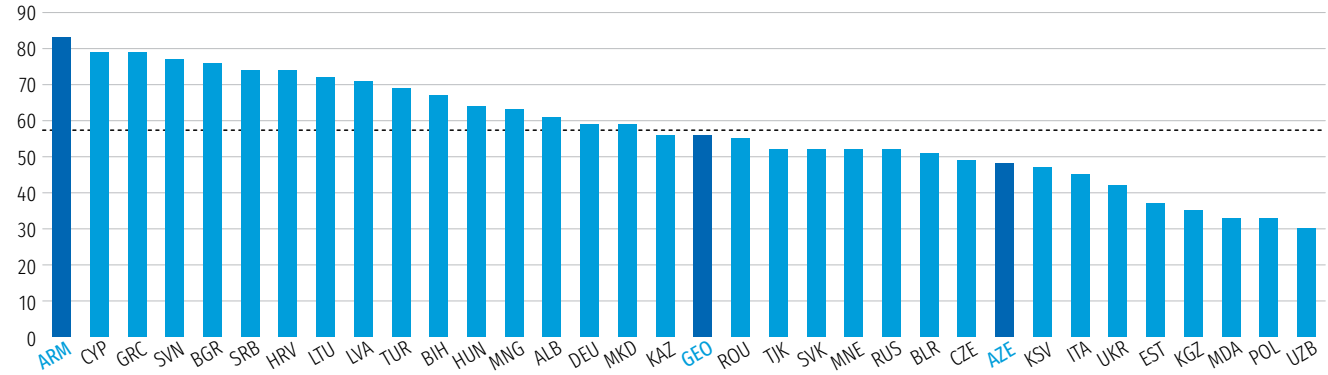
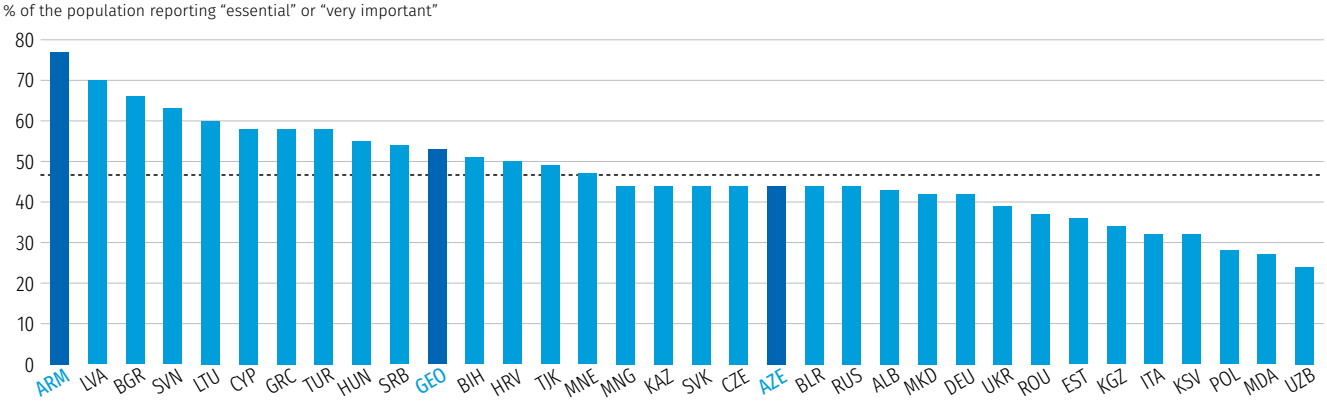


Figure 66. **Perceived role of connections in obtaining jobs, Europe and Central Asia, 2015** (continued)

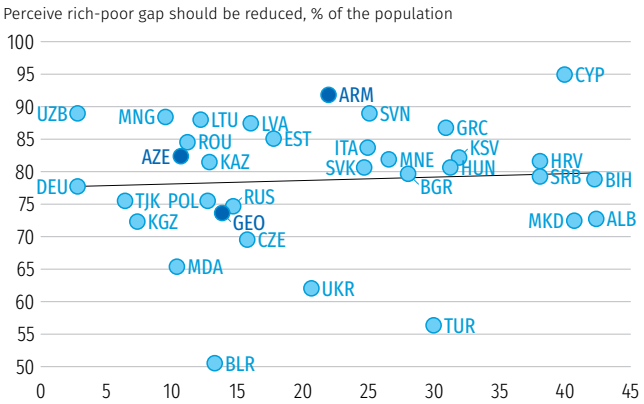
b. Private sector jobs



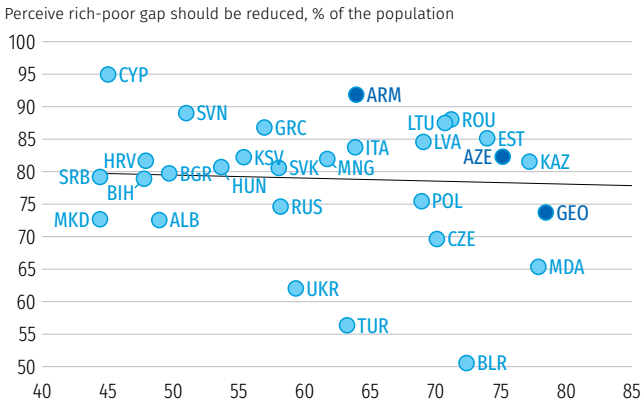
Source: Fuchs, Tiwari, and Shidiq 2018.

Figure 67. **Demand for redistribution and perceived fairness, Europe and Central Asia, 2015**

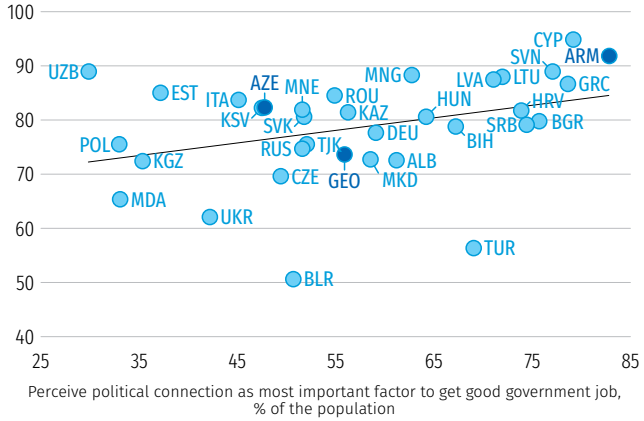
a. Political connections to get ahead in life



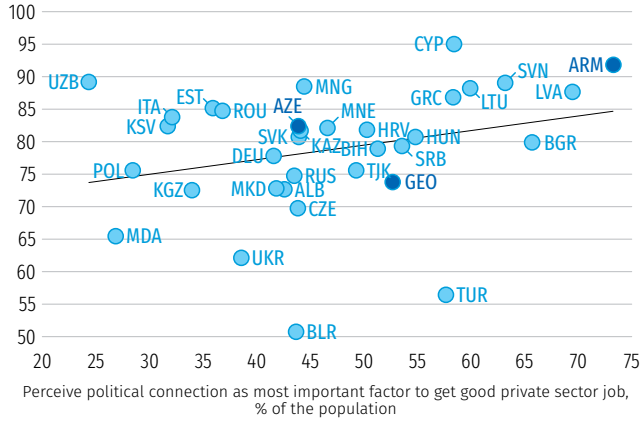
b. Hard work, effort and skills to get ahead in life



c. Political connections to get government job



d. Political connections to get private sector job



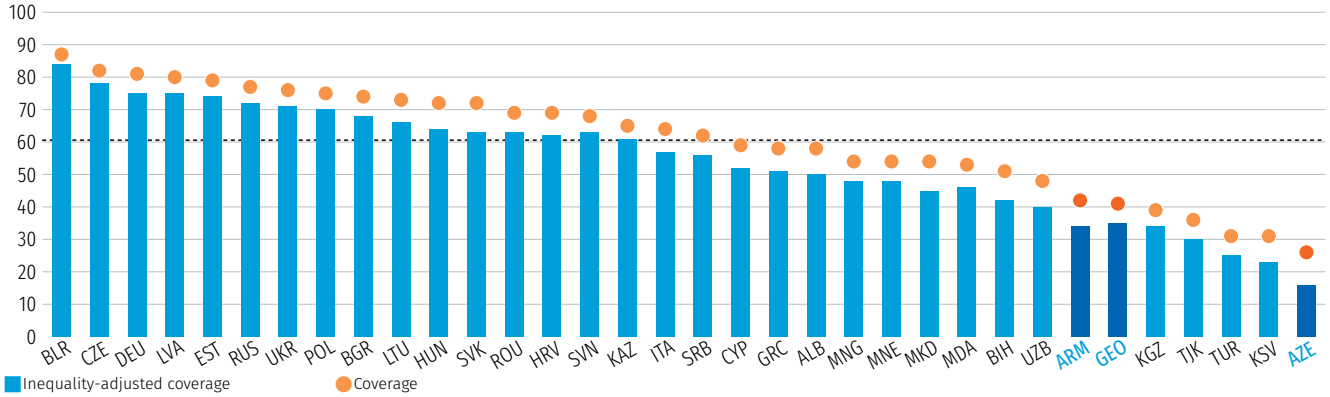
Source: Fuchs, Tiwari, and Shidiq 2018.

Inequality in the labor market

The coverage rate of good jobs in the South Caucasus is among the lowest in Europe and Central Asia according to all three definitions, that is, working 20 hours or more a week, working 20 hours or more a week with a contract, and working 20 hours or more a week with a contract and security of tenure (figure 68). Only around a quarter of Azerbaijanis and 40 percent of Armenians and Georgians work more than 20 hours a week, compared with the regional average of 61 percent (figure 68, panel a). Using the HOI framework to calculate a penalty factor for inequality results in an inequality-adjusted coverage rate that is lower by about 5–10 percentage points, without significantly reordering the rankings among nations for any measure of a good job.

Figure 68. **Share of the labor force working in good jobs, Europe and Central Asia**

a. Working 20 or more hours a week



b. Working 20 or more hours a week with a contract

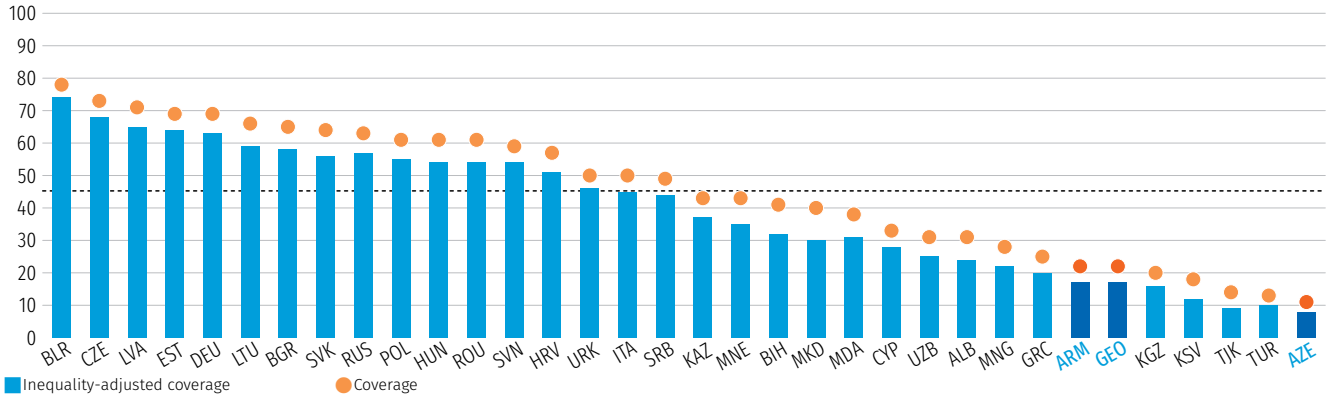
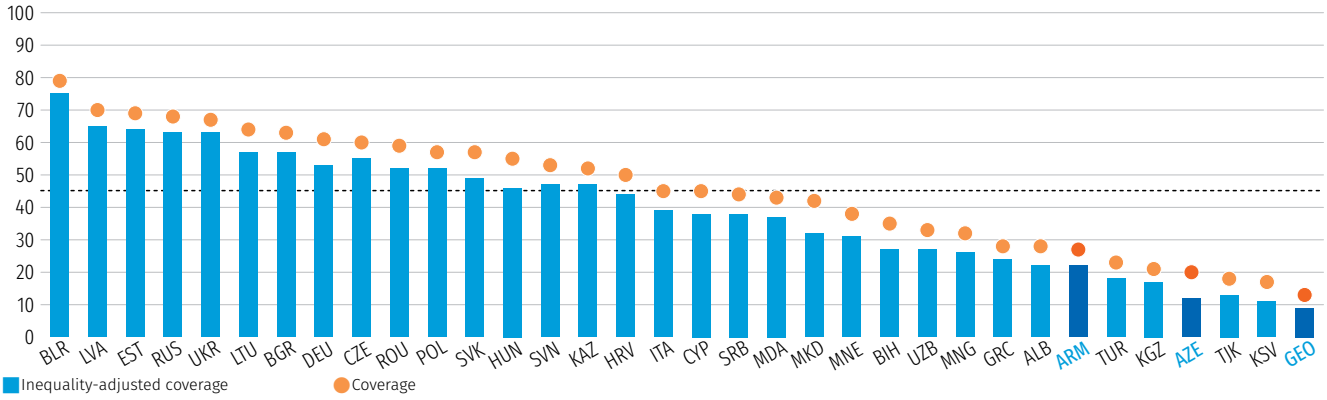


Figure 68. **Share of the labor force working in good jobs, Europe and Central Asia** (continued)

c. Working 20 or more hours a week with security of tenure



Source: Fuchs, Tiwari, and Shidiq 2018.

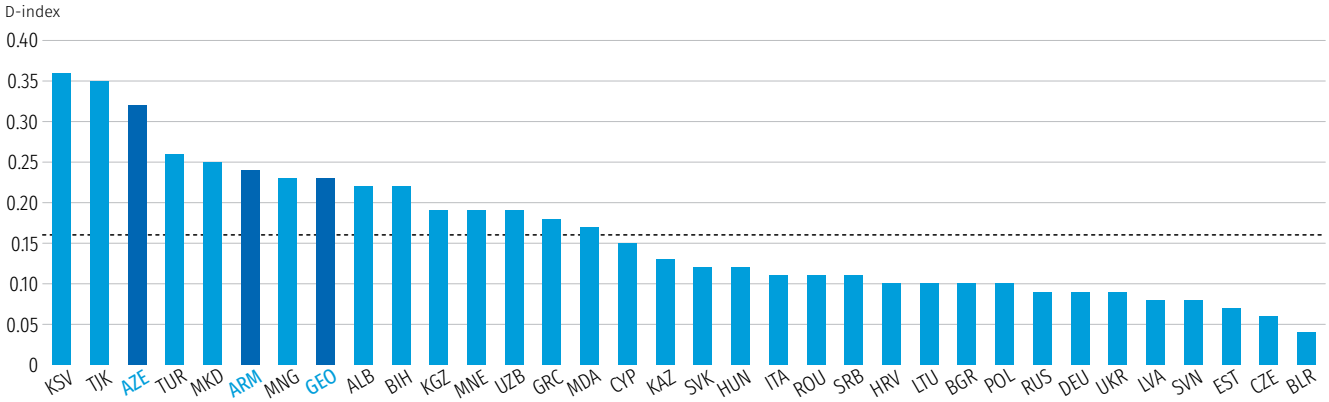
Measured using the D-index (the dissimilarity index), between-group inequality in access to good jobs is high in the South Caucasus (figure 69). The D-index is calculated across subgroups created according to effort and circumstances. The three South Caucasus nations exceed the 34-country average. The measure is particularly high in Azerbaijan. Considering jobs involving work for 20 hours or more a week, the D-index is 0.39 in Azerbaijan, but lower in Armenia and Georgia, at 0.18 and 0.16, compared with the average of 0.12 in Europe and Central Asia. In addition, the stricter the definition of a good job, the greater the inequality, except in Azerbaijan, where the D-index is highest in the case of jobs involving work for 20 hours or more a week.

Figure 69. **The D-index of inequality: the share of the labor force working in good jobs, Europe and Central Asia**

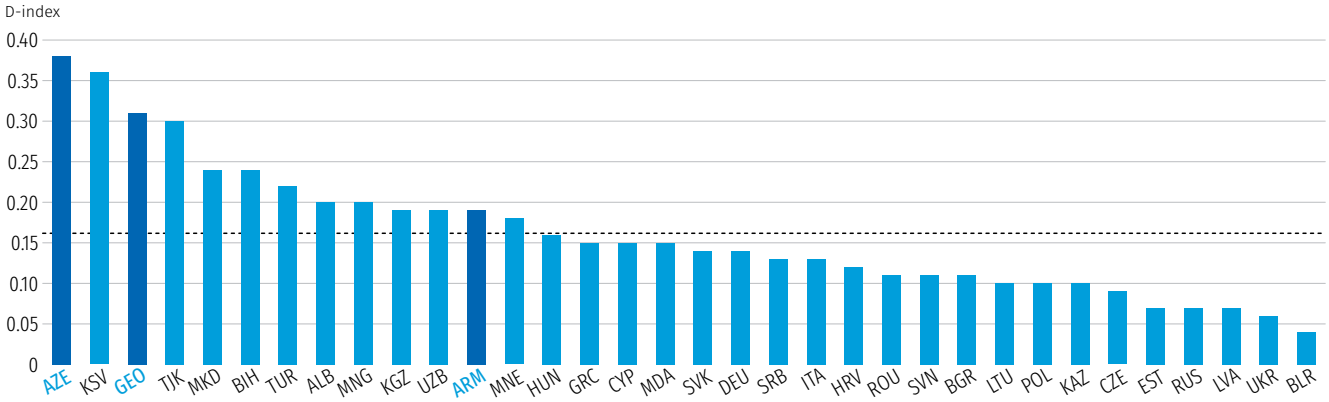
a. Working 20 or more hours per week

Figure 69. **The D-index of inequality: the share of the labor force working in good jobs, Europe and Central Asia** (continued)

b. Working 20 or more hours per week with a contract



c. Working 20 or more hours per week with security of tenure



Source: Fuchs, Tiwari, and Shidiq 2018.

The South Caucasus exhibits low coverage rates for good jobs and high inequality across population subgroups. The analysis attempted to quantify the extent to which inequality in access to good jobs can be attributed to fair and unfair elements, following the procedure described in the methodology. The South Caucasus is compared with all countries surveyed in the 2016 round of the Life in Transition Survey, as well as the following subgroups:

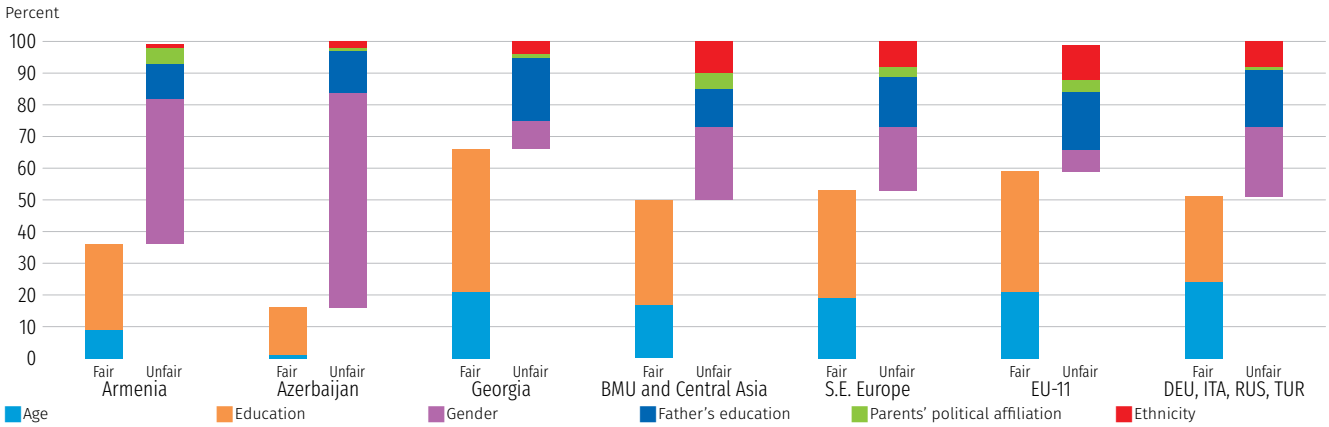
- Belarus, Moldova, Ukraine, and Central Asia (Kazakhstan, the Kyrgyz Republic, Mongolia, Tajikistan, Uzbekistan)
- Southeastern Europe (Albania, Bosnia and Herzegovina, Cyprus, Greece, Kosovo, the former Yugoslav Republic of Macedonia, Montenegro, and Serbia)
- The European Union–11 (Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic, and Slovenia)
- Germany, Italy, the Russian Federation, and Turkey

An important finding of this chapter is that a sizable share of the inequality in access to good jobs is unfair in Armenia and Azerbaijan, while the corresponding share is moderate in Georgia (figure 70).

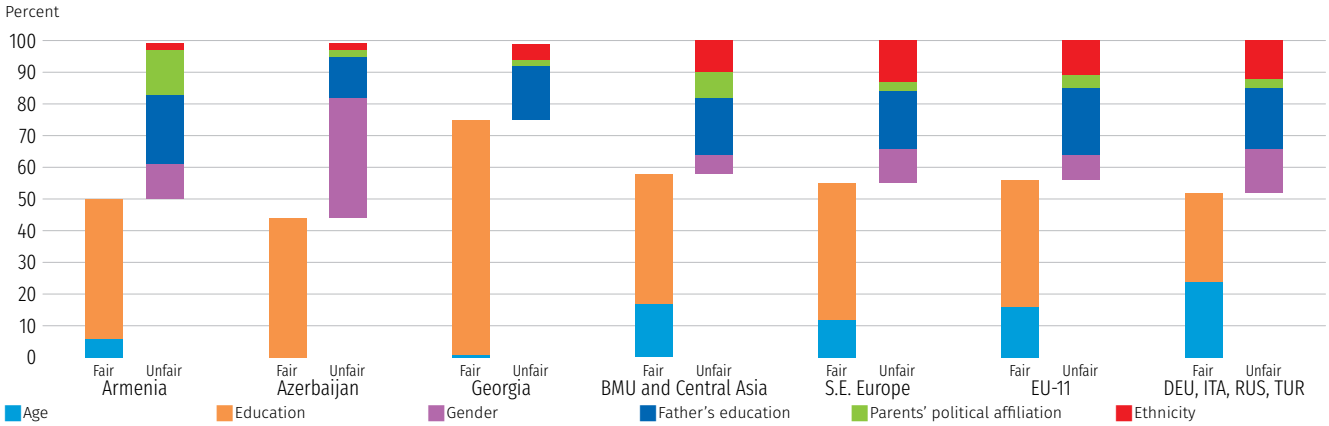
Thus, the share of the unfair element of inequality in access to jobs involving 20 hours of work or more a week is small in Georgia, at 34 percent, compared with the 47 percent of the 34-country average. Armenia and Azerbaijan, however, show the highest level of unfairness in the sample; 63 percent and 85 percent, respectively, of the inequality in these countries is caused by unfair circumstances.

Figure 70. **Decomposition of the D-index of inequality: share of the labor force working in good jobs, Europe and Central Asia**

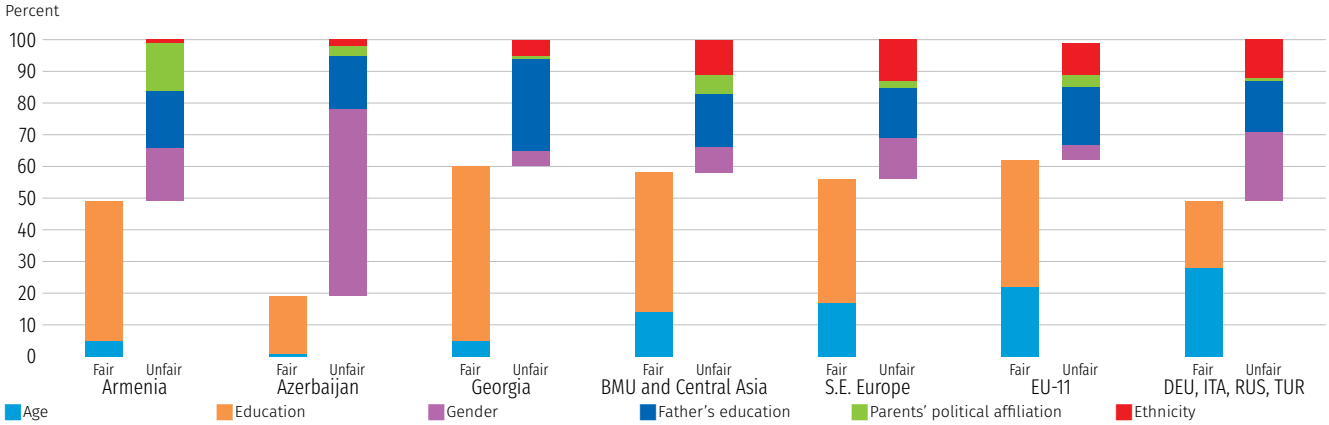
a. Working 20 or more hours per week



b. Working 20 or more hours per week with a contract



c. Working 20 or more hours per week with security of tenure



Source: Fuchs, Tiwari, and Shidiq 2018. Note: BMU and Central Asia = Belarus, Moldova, Ukraine, Kazakhstan, the Kyrgyz Republic, Mongolia, Tajikistan, and Uzbekistan. S.E. Europe = Albania, Bosnia-Herzegovina, Cyprus, Greece, Kosovo, FYR Macedonia, Montenegro, and Serbia, EU-11 = Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia. GER, ITA, RUS, TUR = Germany, Italy, Russian Federation, and Turkey.

While unfair circumstances matter less in gaining access to jobs involving work of 20 hours or more a week with contracts, the share of unfair elements in jobs with tenure is not substantially different from the relevant share of good jobs with no contract or tenure. The diminishing role of the unfair element in inequality among more well secured good jobs is evident in Armenia, but not in Azerbaijan or Georgia (figure 70).

The specific factors contributing to the unfair element in the inequality in access to good jobs in the South Caucasus differ across job categories and countries. Gender plays a relatively smaller role in Georgia. In Azerbaijan, however, gender drives 68 percent of the inequality in access to jobs involving work of 20 hours or more a week and a smaller, but considerable share of these jobs with contracts or tenure (figure 70). Armenia shows a slightly different pattern: for jobs of 20 hours or more a week, the share of the gender factor in inequality is 46 percent, but this declines significantly, to 11 percent and 17 percent, respectively, for jobs of 20 hours or more a week with contracts and for such jobs with tenure.

Parental educational attainment is important in inequality, especially in Georgia, where it drives around 20 percent–30 percent of the inequality in access to good jobs. The corresponding shares in Armenia and Azerbaijan are between 11 percent and 22 percent. Parental political affiliation contributes substantially to inequality only in the access to good jobs with contracts (14 percent) or tenure (15 percent) in Armenia.

Among the fair components of inequality, educational attainment generally matters a great deal (see figure 70). Though its contribution to inequality is smaller relative to gender in jobs of 20 hours or more of work per week, the contribution of educational attainment generally increases in jobs with contracts or tenure. The other fair component of inequality, age, is used as a proxy for work experience. It generally contributes less to inequality, except in Georgia for jobs involving work of 20 hours or more a week (21 percent).

To verify these findings, several regressions are performed (see appendix D, page 101). The analysis reveals the following:

- The educational attainment of respondents and their parents is equally significant in driving the access to good jobs.

- The contribution of the age of respondents—a proxy for work experience—to inequality is no greater in manufacturing and high-quality services than in other industries. Nor is the share greater in the inequality among younger cohorts. This indicates that the collapse of these sectors after 1991 has not rendered work experience irrelevant.

- The educational attainment of respondents does not have a greater effect on inequality in access to good jobs in industries with more severe skill mismatches. This indicates that educational attainment is a reasonable proxy as a measure of skills.

Inequality in human capital inputs

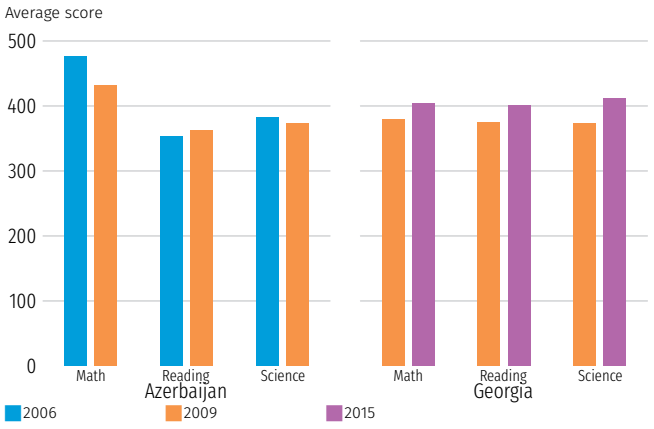
The previous section assumes that the inequality in labor market access associated with educational attainment or work experience was at a relatively fair level. However, if all individuals do not have equal access to opportunities in their childhood, differences in education or other human capital characteristics may reflect unfair inequality, rather than voluntary choices. To probe this issue, this section evaluates learning performance and applies the HOI approach to the measurement of inequality in children's access to basic utilities.

Learning

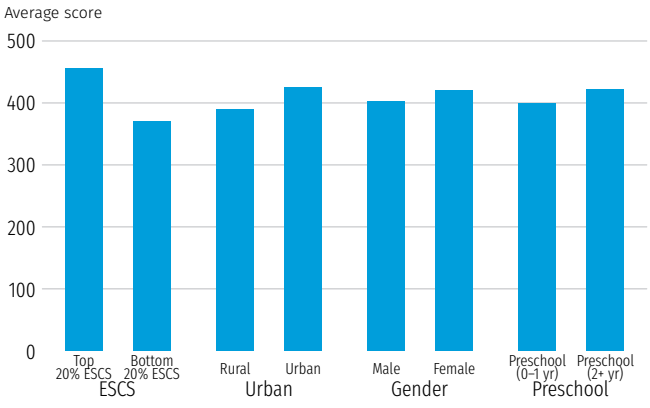
This subsection evaluates learning using scores on tests of the Program for International Student Assessment (PISA) of the Organisation for Economic Co-operation and Development (OECD). The focus is Azerbaijan and Georgia, both of which participated in the test on two occasions. The test scores in Georgia improved significantly between 2009 and 2015, by 38 points in science, 25 points in mathematics, and 27 points in reading (World Bank 2016b). (See figure 71, panel a, where a 30-point improvement corresponds to about one year of schooling.) Meanwhile, in the two rounds of the PISA test, in 2006 and 2009, the performance in Azerbaijan was less impressive. The country's average score in reading rose by 9 points, but the mathematics score dropped rather significantly, by 45 points. Overall, these levels of learning achievement in the countries of the South Caucasus are still far below the averages in the OECD and in Europe and Central Asia. For example, the science score in Georgia in the 2015 PISA round was 411, while the average in Europe and Central Asia was 454, and the OECD average was 493. More than half the 15-year-olds in Georgia scored below basic proficiency in science, reading, and mathematics.

Figure 71. **Learning performance in the PISA scores, Azerbaijan and Georgia**

a. **Azerbaijan and Georgia: PISA scores by subject**



b. **Georgia: Proficiency among 15-year olds**



Source: Fuchs, Tiwari, and Shidiq (2018).
Note: ESCD = economic, social, and cultural status.

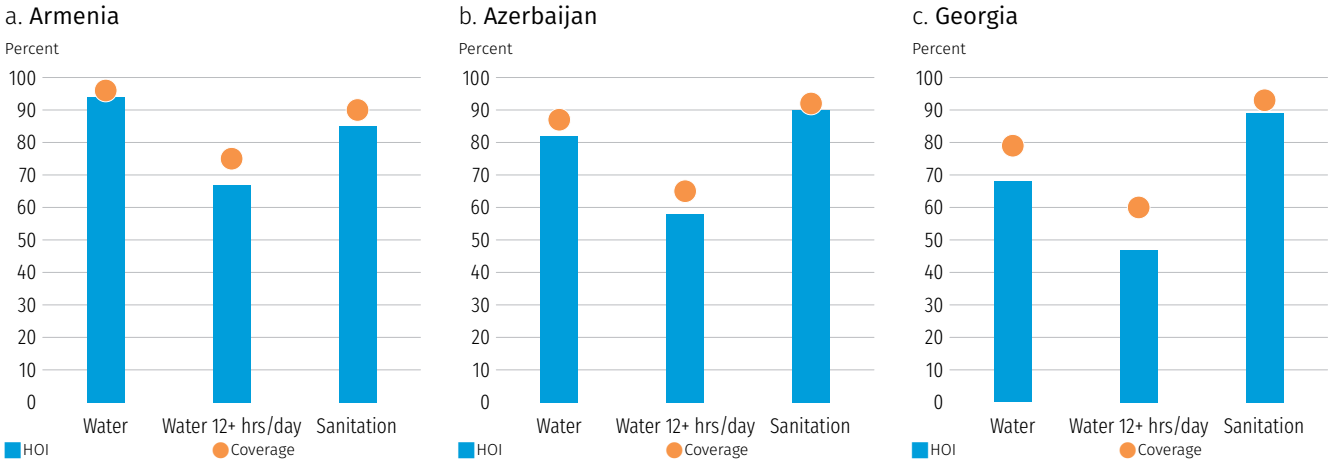
Even more concerning, the educational disadvantages among the working-age population appear to emerge in Georgia early in life. Despite near-universal attendance, learning outcomes vary dramatically by the circumstances of children (figure 71, panel b). Two students of the same age and grade, but at the top and the bottom of the scale of economic, social, and cultural status, respectively, achieve

scores that differ by 30 points. There are also large differences between students in urban and rural areas (36 points), boys and girls (17 points), and children who have been exposed to preschool longer (23 points).

Children's access to basic utilities

A standard HOI calculation on access to water and sanitation has also been conducted, as described in the methodology.[26] Access to water is relatively high across all three countries. Armenia is the highest, at 96 percent; Azerbaijan is at 90 percent; and Georgia is at 79 percent (figure 72). Adjusting these rates for inequalities reduces the effective coverage rate only by 2–9 percentage points, indicating a low degree of inequality among groups. The high access rates are corroborated by other data sources and by the fact that the three countries have met the relevant Millennium Development Goal (UNESCAP 2017; UNICEF and WHO 2015).

Figure 72. **Access to water and sanitation among children, South Caucasus**



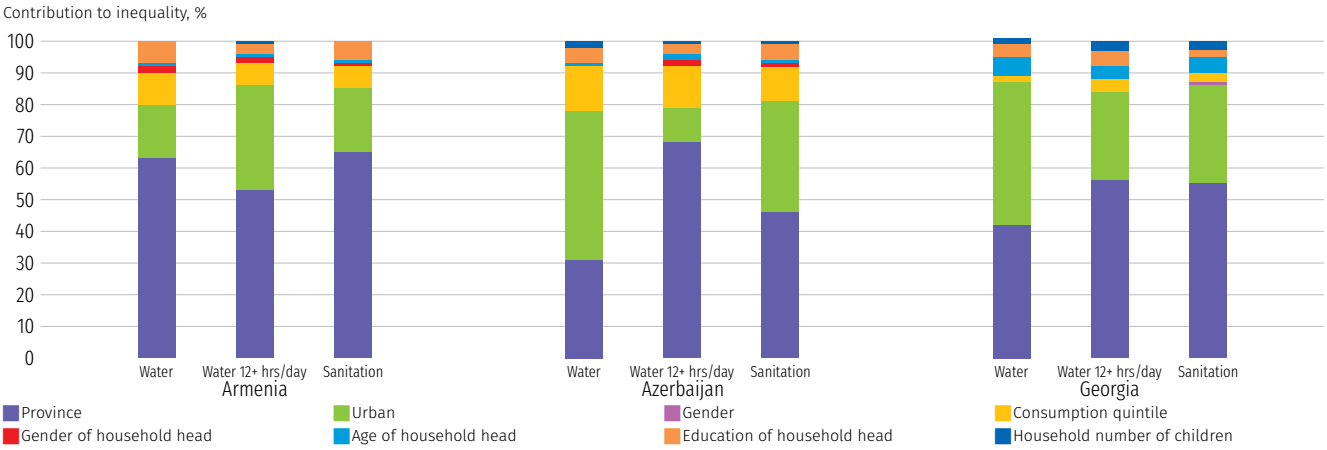
Source: Fuchs, Tiwari, and Shidiq 2018. Note: Includes children ages 0–16.

Similarly, access to sanitation was high in all three countries, exceeding 90 percent, and inequalities measured by the D-index were low. The high coverage rates are confirmed, although only Azerbaijan successfully met its Millennium Development Goal (UNESCAP 2017; UNICEF and WHO 2015).

The results of the decomposition of the D-indexes suggests there are spatial disparities in the supply of basic human capital inputs in all three South Caucasus countries. For example, for access to water for at least 12 hours a day, 33 percent and 53 percent of the total between-group inequality in Armenia arises from differences in urban-rural and provincial residence, respectively (figure 73). In Azerbaijan, the respective shares are 11 percent and 67 percent, and, in Georgia, 28 percent and 55 percent. While the contributions of other circumstances are relatively small, differences in per capita incomes appear to play a considerable role in Azerbaijan, accounting for over 10 percent of the inequality in access to water and sanitation among children.

26 The definitions of access differ across countries. In Azerbaijan, children have access to water if it is available in their dwellings from any source. In Armenia, children are considered to have access if their households obtain water from a central supply. In Georgia, access refers to whether the households have water systems within or near the home. Likewise, in Azerbaijan, children are considered to have access to sanitation if there are toilets in their dwellings. In Armenia, access to sanitation refers to whether the households have local or centralized sanitation utilities. In Georgia, all households claim to have toilets, and access to sanitation is absent if the toilets are latrines emptying into a river, channel, or ravine.

Figure 73. **Decomposition of inequalities in access to water and sanitation, South Caucasus**



Source: Fuchs, Tiwari, and Shidiq 2018.

Key takeaways for each country

Armenia

- *Armenians perceive that access to job opportunities are unfair and call for redistribution.* 83 percent of Armenians consider contacts essential or important in acquiring a good government job.

- *Access to good jobs is limited and correlated with unfair sources of inequality.* Only around 40 percent of Armenians work more than 20 hours a week. Unfair factors account for 63 percent of inequality in access to those jobs.

- *Gender and parental educational attainment are important drivers of labor inequality.* Gender explains 46 percent of inequality in jobs of 20 hours or more a week. The share is less significant in the case of jobs with contracts or tenure. Parental educational attainment accounts for 11 percent of inequality in jobs of 20 hours or more a week.

- *Differences in access to basic inputs to accumulate human capital arises from urban-rural divides and across provinces.*

Azerbaijan

- *Azerbaijanis perceive relatively fair access to jobs, as measured by their judgement on the importance of contacts to find a government job.*

- *The limitations in the access to opportunities in labor markets are driven by unfair inequalities.* Only around a quarter of Azerbaijanis work more than 20 hours a week. Unfair factors account for 85 percent of the inequality in access to good jobs in Azerbaijan.

- *Gender and parental educational attainment are the main drivers of inequality.* Gender drives 68 percent of the inequality in access to jobs involving work of 20 hours or more a week, and smaller but considerable shares in the case of jobs with contracts or tenure.

- *There are spatial disparities in the supply of basic human capital inputs.* Despite high connection rates, inequalities in water provision and sanitation arise across income level, economic regions, and urban-rural divides.

Georgia

- *Georgians exhibit low preference for redistribution and low perceptions of unfair access to jobs.*

- *Most Georgians have limited access to good jobs, though unfair factors contribute moderately to inequality in access to the job market.* Only around 40 percent of the Georgian labor force work more than 20 hours a week. Unfair factors contribute 34 percent of the inequality in access to good jobs involving 20 hours of work or more a week. Parental educational attainment and experience (proxied by age) are significant determinants of access to good jobs.

- *Learning outcomes remain low and reflect inequalities in children's socioeconomic status, gender, and location.* Despite near-universal access to education, learning outcomes are far below averages in the OECD and in Europe and Central Asia. Learning varies across economic, social, and cultural status, gender, and the urban-rural divide.

- *Spatial disparities persist in the supply of basic human capital inputs.* Despite high overall coverage, inequalities in access to water arise across administrative regions and between urban and rural areas.

Chapter 4. Conclusions and policy discussion

Chapter 4. Conclusions and policy discussion

Armenia, Azerbaijan, and Georgia are facing a crossroads along their development path. Mobility—the opportunity of individuals and communities to achieve a better future—is fundamental to continuing forward in reducing poverty, achieving progress in sharing prosperity, and providing opportunities for the middle class to meet its aspirations. This book seeks to clarify spatial, economic, and social mobility in the South Caucasus, identify trends and binding constraints to mobility, and offer insights to inform policy.

This chapter translates the analytical findings of chapters 1–3 into policy options that may help tackle the constraints to mobility and facilitate the inclusion of every individual, community, and province or region in the economic development process of the three countries of the South Caucasus.

Despite the wide variations in the challenges in these countries, the assessment of mobility contained in this report identifies several common patterns. First, the transformation of overall growth into welfare improvements is not occurring in a balanced manner across households. Poverty in the South Caucasus is neither static nor homogeneous. Even during periods of substantial economic growth and rapid poverty reduction, which Armenia, Azerbaijan, and Georgia have experienced at various times, a large number of households in the South Caucasus fell back below the poverty line, and a large share of the population continues to live in chronic poverty in all three countries. A similar churning has occurred in educational attainment across generations.

Second, access to good jobs is a key determinant of improvements in welfare, and inequalities in the availability and distribution of good jobs exert a large influence on the welfare of individuals and households. The three countries are characterized by a great deal of informality, and access to good jobs is not evenly distributed. Inequality in the access to good jobs is associated with factors beyond the control of individuals, such as gender and the educational attainment or political affiliation of the parents of the individuals. Inequality of opportunity seems to emerge at an early age, when the possibility to accumulate human capital may be constrained by spatial or socioeconomic disparities in the inputs necessary to improve learning outcomes.

Third, although important progress has been achieved, many households in the three countries still lack access to basic services. These households are often concentrated in certain provinces or regions. Providing universal access to basic services, such as lifeline roads or high-quality education, is necessary to guarantee equal opportunities to all, especially in remote areas or areas characterized by difficult terrain in which economic growth will likely remain subdued. In addition, universal access to good quality services would equip individuals to participate fully in the economy.

Fourth, a better understanding should be fostered of urbanization and how this process might be harnessed to promote welfare, especially in cities other than the capital. Relevant initiatives might include a focus on better connectivity of these cities with the capital and with world markets. In Armenia and Georgia, this might help boost economic growth and reduce migration, while, in Azerbaijan, it would help diversify the economy away from oil.

Fifth, perceptions of populations on mobility and inequality of opportunity are often not aligned with the picture presented by indicators, cross-country comparisons, or other data-based measurements. Evidence suggests that the degree of intergenerational social and economic mobility may explain some of this discrepancy between perception and measurement.

The next section describes the main constraints on mobility in each country. This is followed by a discussion of country-specific remedial policy options. The intent is not to provide a comprehensive or exhaustive policy agenda for the South Caucasus. Instead, for each country, policies are prioritized that are directly related to the problems and issues revealed by the analysis in chapters 1–3. The causes of immobility and inequality in the South Caucasus are complex and multidimensional. So, the focus is on policies that would likely have an impact in the effort to remove the binding constraints on social, economic, and spatial mobility. While the policy options are discussed by topic, they are interconnected and spill over several aspects of mobility at once. For example, while the accumulation of human capital affects the prospects for social and economic mobility, it is also directly influenced by spatial mobility, which constraints children's access to education. Policies aiming at resolving such constraints on mobility complement and reinforce each other.

Adapting the policy framework from *World Development Report 2009* (World Bank 2009b), most of the policy discussion revolves around three types of policies or instruments that may influence mobility: (1) horizontal institutional arrangements that provide certainty across the economy and society; (2) hard and soft infrastructure that connects peoples, geographical and administrative areas, and markets; and (3) interventions that target and provide incentives to specific areas and populations. While policy should be spatially blind, and while the bedrock goal of policy should be to integrate people in the process of development, all three types of policies or instruments are needed (World Bank 2009b). Although policy priorities and opportunities are proposed to improve mobility in the South Caucasus based on the results of the analysis in chapters 1–3 and the theoretical dynamics of mobility, the specific details of the appropriate design and implementation of successful, relevant policies are matters for further study.

Armenia

The people of Armenia are facing the challenge of maintaining sustainable growth under less favorable external circumstances and the reduced effectiveness of the economic drivers of the last decade, namely, large external financial inflows to fuel the nontradable sector and strong domestic demand (World Bank 2017a). The most important challenges include the need to reorient the growth model toward a stronger, more diversified export sector, overcome connectivity and productivity constraints, counter demographic pressures, and build resilience to micro- and macroeconomic shocks (World Bank 2017a). Achieving shared prosperity will thus depend on the ability of all individuals to gain access to opportunities (World Bank 2017a). The mobility assessment of chapters 1–3 provides key insights to clarify these challenges and to inform policy options.

Review of the main constraints on mobility

The analysis undertaken for this book shows that two-thirds of the Armenian population and half the poor live in urban areas. Economic growth is concentrated in the capital, Yerevan, and surrounding cities, while higher poverty rates and slower economic progress characterize the north and other secondary cities. Rural areas have outperformed cities other than Yerevan in trends in income and per capita consumption. Difficult topography increases the travel times between cities and results in low market potential among secondary cities.

Strong performance in agriculture has driven recent economic activity in most of the country, especially among the poor. New, high-productivity jobs in services and manufacturing are found mainly in Yerevan. Spatial differences affect the provision of public services, and the services differ by province. More than one Armenian household in seven lacks adequate housing, and overcrowding affects 40 percent of urban households. Most rural households lack healthy heating, and other services are generally inferior in rural areas because of distance, topography, and low population density.

Substantial economic growth in Armenia in 2004–08 and 2010–15 facilitated significant poverty reduction, though churning—upward and downward shifts in poverty status among poor and vulnerable households—suggests that poverty is highly dynamic. For every three Armenians who moved out of poverty in 2010–15, one fell back into poverty, while fewer than 10 percent of the poor remained in poverty. The chronically poor represented one eighth of the population in 2015. The incidence of chronic poverty is highest in secondary cities and is typically associated with low-productivity sectors, such as agriculture and construction.

Inequality in consumption among Armenian households is amongst the highest in Europe and Central Asia. But the evidence on spatial inequality is mixed. Income inequality across provinces is a growing concern, but the bulk of inequality is visible in variations in household incomes within provinces. Household characteristics do not explain the inequality in consumption across lagging and leading provinces, suggesting that there are large structural differences across provincial economies. Armenia exhibits the highest social mobility in the South Caucasus as proxied by the association in educational attainment between survey respondents and their parents. However, Armenia also has the greatest potential for downward mobility in educational attainment in Europe and Central Asia, suggesting that both upward and downward mobility characterize education in Armenia across generations.

A sizable share of the inequality in the labor market is unfair in Armenia, that is, it is associated with factors beyond the control of the individual, indicating the existence of substantial inequality of opportunity. Unfair circumstances account for 63 percent of the inequality in the access to good jobs, the highest level of unfairness among 34 countries. Gender is an unfair factor that is particularly relevant, explaining up to 46 percent of the inequality. Most Armenians believe that political contacts are essential to finding a public sector job, and data confirm the relatively large contribution of parental political affiliation to inequality in the job market. Unfair inequalities also occur in the access to the inputs needed to accumulate human capital, such as education. Most Armenian children have access to basic utilities (water and sanitation), though there are spatial disparities across provinces and between urban and rural areas.

Policy recommendations

The results on social, economic, and spatial mobility highlight the need to address mobility constraints by fostering human capital accumulation, tackling unequal treatment in labor markets, expanding high-productivity jobs that allow for sustainable sources of income, connecting rural and urban areas, identifying the constraints to mobility in lagging provinces, leveling the field in access to quality education and basic services, and implementing safety nets to complement labor incomes in support of household resilience.

Human capital

Human capital accumulation is a key enabler of mobility. In addition to its intrinsic value, the acquisition of skills and knowledge is key to helping the people of Armenia increase aggregate productivity and households and individuals to access better opportunities in the labor market. The government of Armenia should adopt policies to improve the quality of learning in the education system and to build and allocate useful human capital resources within the economy.

Recommendation: *Enhance the quality and equity of education to deliver better learning outcomes*

The analysis shows that educational attainment and better opportunities on the labor market have been key enablers in the effort among households in Armenia to overcome poverty and join the middle class. However, learning outcomes are still shallow and inequitably distributed. Educational attainment is lower in the poorer northern provinces. And simultaneous upward and downward shifts in educational attainment are a warning sign of the lack of intergenerational social progress. The government needs to boost its efforts to ensure quality and equity in learning outcomes across population groups, provinces, and generations.

Improving the quality of learning is a highly complex policy challenge. Some experts say that the quality of teaching needs to be improved in Armenia and that investment must be raised to modernize the outdated curricula and low-quality instruction that leave graduates in the provinces unequipped for the workforce (Martirosova et al. 2017). Efforts are under way to revamp the general curriculum and establish better links among higher education, research, industry, and government. However, while it is clear that educators should seek to improve learning outcomes, the traditional metrics used to monitor school enrollment and performance do not reveal much about the quality of education, can hide spatial disparities, and mask the unfair sources of inequality. Except for self-assessments on the quality of education from household perception surveys, no indicators have been developed on the skills acquired or the effectiveness of schooling (Martirosova et al. 2017).

As a means to improve the quality of education and enhance mobility, educators should implement a system to measure and monitor learning outcomes and skills acquisition closely and in a timely manner. The education system should reflect an awareness that equality of opportunity requires the constraints on access to the education system and other basic inputs that support human capital accumulation to be overcome. To reach this goal, the government could leverage the results and the political momentum generated by the Human Capital Project (World Bank 2019). The government was

among the early adopters of the human capital index, which sheds light on the human capital children will accumulate by the time they reach age 18 (appendix E, page 105). The Index adjusts educational attainment according to learning outcomes and incorporates other indicators to approximate related health and quality of life outcomes (World Bank 2019).[27] It thus assists in enhancing learning outcomes among children, thereby improving their future social and economic mobility.

Improving learning outcomes will likely require that educators in Armenia accompany wide-scale, geographically blind education reforms with smaller-scale, geographically targeted interventions. For example, improving teacher quality may require teachers to upgrade their teaching practice through retraining. Short-term targeted interventions could be undertaken to help the lagging northern provinces catch up in educational attainment. In these efforts, the use of the human capital index and other frequently updated indicators will be fundamental to understand and address constraints, launch pilot interventions, and monitor and evaluate learning progress. As necessary inputs, educators should ensure that data are frequently collected and analyzed on communities and provinces and across segments of the population.

Recommendation: *Provide students and workers with skills that match the needs of the labor force*

The mobility analysis in chapters 1–3 repeatedly highlights the need to provide all individuals and provinces with opportunities to participate in labor markets. Armenia's structural transformation has shifted jobs away from agriculture and construction toward the service sector, increasing the demand for highly educated and skilled technical workers (World Bank 2017a). While this transformation creates an array of economic opportunities for the middle class and the country in general, it may also threaten the prospects for mobility among those individuals who lack adequate human capital skills and qualifications to gain access to and perform well in emerging sectors.

In Armenia, employers identify skill shortages as a bottleneck to growth.[28] The education system lags in meeting the demand for advanced skills in emerging sectors such as information technology and high technology, in which the substantial growth rates since 2006 indicate an expanding need for highly skilled technical workers. Student enrollment in science, technology, engineering, and mathematics (STEM) programs is low, and information technology and high technology are only marginally represented in vocational education and training programs (World Bank 2017a).

Skills shortages and mismatches limit the prospects of households for mobility. But they also induce the misallocation of resources, curtail innovation, and hinder aggregate output and productivity.[29] Moreover, given the nature of the ongoing structural transformation in Armenia, changing demands for skills more likely affect the poor and the vulnerable middle class, especially if, for example, individuals were previously employed in low-productivity sectors, such as construction, or if they lack access to information technology because of geographical isolation. To address this, educators should ensure that school curricula provide students with necessary, up-to-date skills and qualifications

27 Children born in Armenia are able to utilize 57 percent of their human capital potential by the time they reach adulthood. While they can expect to attain an average 11.1 years of schooling by the time they reach adulthood, adding a measure of the quality of education to the calculation indicates that these 11.1 years represent only 7.9 learning-adjusted years of schooling. See "Human Capital Project," World Bank, Washington, DC, http://www.worldbank.org/en/publication/human-capital.

28 Data on 2013, Enterprise Surveys (database), International Finance Corporation and World Bank, Washington, DC, http://www.enterprisesurveys.org.

29 The interdependency of investments in skills and innovation can result in coordination failures whereby the economy underinvests in both and forgoes potential productivity and output growth (Rodríguez-Clare 2005).

that match the changing demands of the job market. The low enrollment in STEM courses should be further investigated, including demand and supply factors, such as the availability of STEM programs, student preferences and perceptions, and so on. The government might also implement mechanisms to allocate existing human capital to labor markets more efficiently.

The government could support national strategies to offer skills-based curricula in education through targeted interventions to enhance the skills of the most socially, economically, and spatially vulnerable households. The analysis suggests that individuals who have not completed high school, who are living in lagging secondary cities, or who are transitioning out of agriculture or lower-productivity sectors would benefit from training opportunities to match their skills to available jobs. To this end, the government could evaluate scaling up the Active Labor Market Program and consider investing in the administrative capacity of the State Employment Service Agency (World Bank 2017a).

Labor markets

Especially through wage incomes in formal jobs, labor markets have been the primary mechanisms for the transmission of the benefits of growth to sustainable poverty reduction and the expansion of the middle class in Armenia. Because of the slowdown in labor productivity growth since 2008 and a shrinking and aging population, the country is confronting the imperative of making better use of all labor resources (World Bank 2017a). The mobility assessment described in chapters 1–3 suggests that addressing this will require Armenia to improve the access and supply of high-quality jobs. Government labor policy in Armenia should guarantee that (1) good jobs are allocated to the most highly qualified individuals, based on effort, skills, and qualifications, instead of unequal and unfair treatment; and that (b) more of these good jobs become available to provide individuals with the opportunity to earn stable formal sector incomes.[30]

Recommendation: *Ensure equity in labor markets by reducing unfair inequalities in access to good jobs*

Reducing gender barriers and other barriers to access to labor markets is fundamental to providing vulnerable population groups, particularly women, with the opportunity to achieve a better future. Concerns about low labor force participation and gender gaps are emphasized in the literature. It is well known that Armenian women participate at much lower rates than men in the labor market, resulting in a 20 percentage point gender gap among the working-age population (ages 15–64) (World Bank 2017a). In the context of a shrinking and aging population, including women in the labor market could help increase household incomes, raise aggregate output and productivity, ease the dependency ratio and fiscal pressures in the pension system, and spillover to other social benefits, such as women's empowerment.

The mobility analysis supports this assessment by focusing on good-quality jobs and equality of opportunity. Access to good jobs in Armenia is limited and often driven by unfair sources of inequality. Gender and parental educational attainment are key drivers of labor inequality. Capturing the full social and economic benefits of mobility thus requires the inclusion of women and other population

30 The conclusions of the analysis also require that education and social policy guarantee that the opportunity to accumulate skills and qualifications be fairly distributed across children, regardless of their socioeconomic situation or geographical location.

groups in labor markets, which would also provide them with equality in the opportunity to use their talents and efforts in higher-productivity, formal, and permanent jobs.

Although the analysis highlights the substantial contribution of unfair factors in facilitating access to labor markets, the government and stakeholders should investigate and tackle the underlying causes and mechanisms perpetuating these factors. For example, there is evidence that, despite their high educational attainment, women are constrained in their participation in labor markets because of their responsibilities in childcare. More than one third of women with advanced educational attainment and half of women with intermediate educational attainment are not active in the labor force; their marriage and motherhood status is associated with lower labor force participation (World Bank 2017a). Policies aimed at providing early childhood education could reduce childcare costs, which are disproportionately borne by women and indirectly create unfair constraints on access to the job market. Such policies would also level the opportunities for children to accumulate human capital, thereby improving the prospects for social and economic mobility of children later in life. Investigating other cultural, institutional, and legal barriers and building capacity and sensitivity to gender issues would foster more equitable opportunities in the labor market.

Evidence also suggests that women who are active in the labor force earn less than men because of the occupations and employment sectors in which women are typically concentrated (World Bank 2017a). Demand-supply matching mechanisms and other strategies to reduce friction in the search for employment could help reduce the influence of unfair factors, such as gender and parental educational attainment, in the distribution of good jobs and therefore improve equality of opportunities.

Recommendation: *Foster productivity by tackling constraints to private sector growth and formalization*

The pressures are considerable to increase the supply of high-quality jobs in Armenia. The creation of new jobs in higher-productivity sectors has only partially offset the loss of lower-productivity jobs. A modest expansion of the labor force since 2008 has led only to higher unemployment (World Bank 2017a). Moreover, job and income instability seem to be affecting the most vulnerable groups and provinces, perpetuating chronic poverty and hindering sustainable transitions to the middle class.

A vibrant private sector could stimulate labor demand and provide access to more stable, more well paid formal jobs. However, private sector growth and competitiveness have been lagging, while exports are below potential. Although the business environment has improved over the past decade, institutional constraints to private sector development still include limited competition and the lack of progress in establishing property rights and adequate tax administration and public and corporate governance. Access to financial markets, reliable power, and good-quality infrastructure is also limited (World Bank 2017a). Enhancing access to basic institutional, financial, and physical inputs for private sector growth would incentivize job creation.

There is evidence that the entrepreneurship potential in Armenia is substantial. Small and medium enterprises (SMEs) are already significant employers and job creators (World Bank 2017a). Constrained credit, poor corporate governance practices, and limited access to productive assets may partially explain the low survival and growth rates of SMEs. Addressing these barriers requires the development of capital markets and the nonbanking financial sector, raising the low savings and deposit rates,

cutting the high costs of capital, and diversifying the access to finance. Technical assistance for microenterprises and SMEs could help expand their management capacities and reduce the risk perceptions of lenders.

Social protection

Recommendation: *Bolster social protection and other safety nets to boost household resilience to shocks*

Policies to foster household resilience are fundamental to lock in the hard-earned gains in poverty reduction and the expansion of the middle class. Upward and downward movements (churning) have characterized economic and social mobility in Armenia. Many households can only overcome poverty temporarily. Others remain vulnerable, struggling to stay out of poverty and unable to consolidate their position in the middle class. Access to safety nets and social protection programs, along with credit markets and savings mechanisms, allows households to maintain stable living standards and cope with bad times through, for instance, consumption smoothing, without falling into poverty or facing the need to reduce the accumulation of human capital and other assets that would hurt the prospects for mobility.

Social assistance has been an important source of household income in Armenia. The flagship Family Benefit Program has improved coverage of poor and vulnerable households, but its limited budget and low transfers per household restrain its impact. Because the program functions relatively well, the government could consider scaling up the program or using the infrastructure and expertise to expand other safety net programs. Pensions have been a main source of household income, especially in secondary cities. While the pension system has contributed to reducing old-age poverty (World Bank 2017a), its financial sustainability is threatened by the rapidly aging population and traditionally low incentives for labor participation. The government should ensure implementation of pending reforms to guarantee the sustainability and adequate funding of the pension system. It should also continue the effort to improve the equity and coverage of the system. While outside the scope of this book, Armenia could benefit if the government were to investigate the financial implications of the limited protection offered by the Basic Benefit Package of health services. The associated high out-of-pocket costs result in high risks among households of impoverishment because of catastrophic health spending. The evidence suggests that small improvements in the targeting of the Basic Benefit Package could lead to substantial redistribution (World Bank 2017a).

Financial instruments must be leveraged to mitigate risks. Domestic savings are particularly low given the income and credit standing of Armenia (World Bank 2017a). Promoting financial savings products could help buffer shocks to household incomes. Savings can also allow for bulky investments in productive or consumption assets that can increase the household welfare and productive capacity. Insurance markets could also help mitigate the risks of natural disasters that are common in Armenia. Some estimates suggest that, in 1994–2014, the costs associated with natural hazards, such as floods, earthquakes, and drought, reached more than US$1.5 billion (World Bank 2018e). Yerevan and secondary cities are susceptible to earthquakes, as Armenia lies in a region of a high seismicity. Earthquakes have affected large shares of the population and generated significant economic losses over the past 20 years. Meanwhile, climate change shocks on agriculture and water availability affect most heavily the chronic poor who depend on subsistence agriculture. Stakeholders could foster the development

of insurance markets to manage these risks. In the case of agriculture and climate change, coinsurance policies agreed between the government and farmers might reduce fiscal costs, while improving incentives and reducing moral hazard. Stakeholders, including the government, could also study the experience of other countries in temporarily scaling up safety net systems—for example, conditional cash transfers—to reach vulnerable households during catastrophic events and emergency situations (World Bank 2016c).

Development in secondary cities

Recommendation: *Identify and address structural bottlenecks in secondary cities*

The provinces of Armenia are evolving along distinct trajectories. Nearly two-thirds of the population and half the poor of the country reside in urban areas. Yet, secondary cities lag behind Yerevan in economic performance, employment opportunities, and market potential. Secondary cities also exhibit the highest poverty rates and the lowest income and consumption growth. Leveraging economic potential and improving living conditions in secondary cities are crucial to achieving shared prosperity and consolidating the middle class in Armenia.

The deep provincial disparities in productivity and consumption represent evidence that the economies of the provinces of Armenia are structurally different. The evidence indicates that a process of deindustrialization is occurring in Armenia, mainly in secondary cities (World Bank 2017a). The shares of industry in gross domestic product (GDP) and employment have shrank over the last 15 years, while manufacturing has lost competitivity. New high-productivity jobs in services and manufacturing are concentrated in Yerevan. However, there are also pockets of productivity in the country, such as a dynamic tourism industry, the growing information and communication technology (ICT) sector, and the expansion of agribusiness products, such as beverages (World Bank 2017a). Nonetheless, the poor living conditions in secondary cities and inequalities in basic services are encouraging emigration and deconcentration and threatening the survival of the cities.

These complex dynamics are influencing the economic potential of secondary urban centers. The paradoxical divergence in development paths across the provinces of Armenia must be investigated. Understanding and addressing the bottlenecks within each productive sector in secondary cities, including the microbusiness climate—are fundamental to designing and implementing successful spatial development and urban planning strategies and to boosting Armenia's structural transformation.

Connectivity

Recommendation: *Improve connectivity between Yerevan and secondary cities.*

One of the main takeaways of the analysis is that mobility requires connectivity to shorten distances, leverage economic and social opportunities, and integrate peoples, provinces, and markets. However, in Armenia, inadequate transport networks and poor road conditions are limiting domestic connectivity and raising trade costs (World Bank 2017a). Poor connectivity and difficult topography are reducing mobility and market potential in areas other than Yerevan.

The government is investing in an ambitious north-south highway project to connect Armenia to world markets and to improve the connectivity of Yerevan to several secondary cities, such as Gyumri. This agenda could be strengthened by investigating the possibility of improving Yerevan's connectivity to the rapidly growing secondary cities in the immediate vicinity, such as Abovyan and Vagharshapat. In addition, the third-largest city in Armenia, Vanadzor, is not currently on the agenda for improved connectivity to Yerevan. The desirability of this might also be investigated.

Armenia's road and transport networks need improvement. Fewer than half the roads are in good or fair condition, and inadequate transport connections in some communities are restricting the trade potential of agricultural products. Other areas of possible improvement in soft connectivity include enhancing fragmented logistics services, implementing border management reforms, and supporting access to competitive Internet connectivity and the adoption of digital technologies (World Bank 2017a).

Basic services

Recommendation: *Enhance household living standards by providing heating and running water*

The analysis emphasizes the importance of avoiding push migration and supplying basic services to raise living standards. However, urban overcrowding and lack of access to adequate housing are major problems in Armenia. Most rural households and many residents in cities other than Yerevan lack access to heating and running water. The lack of basic infrastructure such as public transportation and access to adequate energy for water and indoor heating is constraining provincial economic potential (World Bank 2017a). Most rural households and about one-fifth of households in secondary cities use wood as heating fuel. This exposes households to indoor air pollution and depletes a major natural asset.

While efforts have primarily focused on the efficiency of water use for irrigation, activities to promote household access to heating and running water should be considered. Guaranteeing efficient and equitable access to quality services is also key to confronting the trends toward emigration and deconcentration as well as inequality between Yerevan and the rest of the country. The difficult geography of the country means the centralized networked provision of gas, water, and electricity is expensive. Decentralized solutions should be investigated. The successful experiences in public-private partnerships to improve the quality and reliability of potable water could be reproduced in other basic service sectors or expanded to new locations where agglomeration opportunities allow (World Bank 2017a).

Azerbaijan

The people of Azerbaijan have achieved considerable progress in poverty reduction and shared prosperity, improving standards of living, and expanding the middle class. Oil revenues and a steadily expanding population have contributed to high growth rates. However, the gains from growth have

been unevenly distributed across the country. The traditional drivers of growth also appear to be unsustainable. The country needs to find new sources of growth to meet the twin goals of reducing poverty and sharing prosperity and to fulfill the aspirations of the middle class. In a context of lower oil prices and more adverse external circumstances, the government and other stakeholders must tackle the limited diversification in the economy, the low urbanization rate, and the large disparities between Baku and the rest of the country. They should also seek to improve macroeconomic and fiscal management, use public spending strategically, and strengthen the institutional capacity of the public sector (World Bank 2015a, 2015b).

Review of main constraints on mobility

Unlike in Armenia and Georgia, the rate of urbanization in Azerbaijan is low, at around 50 percent; population is growing; and high poverty rates are more evenly dispersed across the country. Over half the poor live in four rural economic regions, but a substantial share of the poor also live in wealthier Baku and other major urban centers. Economic activity is more intensive in Baku and five secondary cities. Although Baku exhibits the largest market potential, other cities—especially Ganja and Sumqayit—have relatively substantial potential.

Spatial inequality—defined as GDP per capita across the country's economic regions—in Azerbaijan is close to the highest rates in Europe and Central Asia. However, measured by household per capita consumption, the country has only modest levels of inequality, which are mostly explained by differences within economic regions and location-specific characteristics. Increasing disparity in opportunities across the urban-rural divide occur in connectivity and the provision of basic infrastructure and services. The share of the population with low educational attainment is largest in rural areas and smallest in urban centers. Access to drinking water and heating are near universal in Baku and other urban areas, but limited among rural populations.

The benefits from oil-driven growth have helped achieve significant poverty declines in rural and urban areas. However, poverty is still concentrated in rural settings, and important disparities persist across economic regions. The vulnerability to poverty of almost 60 percent of the population is exacerbated by high labor informality and dependence on the oil and gas sector.

Azerbaijanis hold positive perceptions of their living standards relative to perceptions in the South Caucasus. Respondents in two households in five express a favorable assessment of current circumstances relative to four years previous to the surveys. However, the data should be interpreted with caution because of possible data quality issues. Moreover, the absence of comparable data on two points in time makes it difficult to assess economic mobility in Azerbaijan objectively. The limited prospects for upward mobility in educational attainment suggest that social mobility is constrained in Azerbaijan. Greater mobility is associated with higher economic status and residence in urban areas and Baku.

A sizable share of the inequality in the access to labor markets—from 55 percent to 85 percent—is driven by unfair factors. In particular, gender disparities account for up to 68 percent of the inequality in the access to good jobs, the highest share in the South Caucasus. Inequality of opportunities in the labor market is also evident in the spatial and income disparities in access to basic human capital

inputs from an early age. Despite high coverage nationwide, differences by residence in urban or rural areas or in economic regions and differences in income per capita are important determinants of access to water and sanitation among children.

Policy recommendations

The analytical results on mobility that are presented in this book can help the government and other stakeholders to achieved greater shared prosperity among the population and across the economic regions of the country. Boosting social, economic, and spatial mobility would help readjust the drivers of growth in Azerbaijan to avoid the middle-income trap and realize development outcomes consistent with upper-income countries. Based on the analysis in chapters 1–3, addressing the constraints on mobility will require the expansion of labor opportunities beyond the oil and gas sector and subsistence agriculture, the promotion of the accumulation of human capital and diversified productive assets among households, the provision of safety nets to protect the poor and vulnerable and meet the aspirations of the middle class, and achieving connectivity and equal access to quality services across the country. Stakeholders also need systematic data collection and analysis to assess the barriers to mobility and to monitor progress.

Evidence-based policies to foster mobility

Recommendation: *Enhance data analysis from a mobility perspective to support appropriate policies*

Limited data availability restricts the assessment of mobility in Azerbaijan and the capacity of the government to make evidence-based policy decisions to promote economic, social, and spatial mobility. Investments in systems and administrative capacity to measure and monitor welfare are essential for addressing all the dimensions of poverty; recognizing the poor, the vulnerable, and the middle class; and understanding the welfare dynamics that allow some households to escape poverty and seize opportunities, but can keep others caught in chronic poverty and poverty traps (World Bank 2018f).

The government and other stakeholders should invest in the systematic, frequent, and timely collection of data that can serve to monitor progress on mobility and other development goals. Indicators of coverage can mask disparities in effective access to public services and inequalities of opportunity. While poverty rates are highest in rural areas, it is unlikely that poor populations across the economic regions suffer from homogenous problems in mobility. Gauging the causes and heterogeneity of rural poverty and spatial disparity require timely disaggregated data on local areas and vulnerable populations. Complementing improved administrative data systems with periodic household surveys and new digital methods of data collection could reduce costs, while improving data quality. Educators must likewise regularly join in the evaluations of the Program for International Student Assessment (PISA) to assess the quality of learning.

Implementing monitoring and evaluation strategies based on good-quality data can generate the necessary inputs for policy making, including the delivery of public services to favor equality of opportunities across economic regions and population groups. Periodic evaluations of public programs

can improve targeting and the impact of policies on mobility, while strengthening administrative capacity, transparency, and responsiveness to shocks. In the longer term, this is also fundamental in the transition to results-based budgeting and related enhancements in the effectiveness of public spending (World Bank 2015a).

Human capital

Recommendation: *Implement education reforms to foster equality of opportunity in learning*

Improving economic, social, and spatial mobility in Azerbaijan requires enhancing human capital across all population groups and economic regions. In addition to its intrinsic value, human capital enables individuals to obtain and perform well in higher-quality jobs and to generate higher, more stable incomes for their households. In aggregate, given the current priorities of the government, human capital accumulation is fundamental to any strategy to promote competitiveness and economic diversification.

The findings of the analysis in chapters 1–3 imply that three main priorities should be incorporated in the education policy agenda in Azerbaijan: (1) closing gaps in access to education, (2) focusing on learning outcomes, and (3) providing relevant skills.

First, the analysis highlights major spatial and socioeconomic disparities in human capital accumulation. Rural populations lack adequate access to basic services and achieve less educational attainment, which hinders the potential of children to learn. Limited prospects in social mobility, along with income and spatial disparities, indicate the existence of intergenerational traps of low educational attainment among disadvantaged populations. Stakeholders in Azerbaijan must close the gap in educational attainment across and economic regions. They could begin by carrying out a comprehensive diagnosis of the supply and demand constraints on access to education. The evidence points to the need to target enrollment in preprimary and tertiary education. There is also evidence that traditional social norms can cause girls to leave school at an early age or not pursue higher education, affecting mostly women in rural areas where traditional beliefs are more deeply rooted and formal employment opportunities are fewer (World Bank 2015a).

Second, educators and other stakeholders should prioritize improving the quality of learning. Although access to basic education is near universal, student performance is poor. Educators should routinely run standardized tests, including PISA, to benchmark and assess learning outcomes. Poor teacher quality is a key constraint to learning. Raising the low salaries or offering other incentives can help attract and motivate good teachers. Preservice teacher training, professional support, and performance assessments can be used to complement and update teaching skills (World Bank 2015a). Increasing public spending on education, which has not kept up with GDP growth, is probably necessary to implement these changes.

Third, stakeholders should target the gap between the skills provided by secondary and postsecondary education and the skills required to enhance the competitiveness of the private sector. Access to tertiary education is limited nationwide and inequitable across economic regions, the urban-rural divide, and gender (World Bank 2015a). The low quality of secondary, vocational, and tertiary education

results in skill shortages that damage the competitiveness of the private sector.[31] For example, tertiary education currently produces an oversupply of some specialists in education, health, and oil-related manufacturing, while there are shortages in services and agriculture, which lack skills in computer proficiency, management, master craftsmanship, technical areas, and trade (World Bank 2015a). To reduce the disparities in the access to tertiary education, more attention must be paid to monitoring and evaluation, capacity building, and the geographical coverage of universities and vocational programs. Related interventions should focus on testing and targeting cultural norms and the lack of information that may hinder the demand for education among particularly vulnerable groups. For example, behavioral interventions could be piloted to confront damaging cultural norms and improve the take-up of tertiary education opportunities among women. Providing information on occupations, expected salaries, and labor market trends, for example, through online services, could help young people self-select for occupations in higher demand. Reviewing the curricula of tertiary education programs to provide relevant skills to labor markets should be a joint effort, in consultation with employers.

Labor markets

Recommendation: *Guarantee equality of opportunities in access to the labor force*

Labor market income is crucial in reducing poverty and sustaining the progress of the middle class. The government and other stakeholders must ensure that all groups in the population, including women, can access labor market opportunities fairly. They must also create more and better jobs by supporting growth and productivity in the private sector.

The gender disparities in labor markets in Azerbaijan have been covered in the literature. Despite significant increases in labor force participation over the last decade, unemployment among women remains high (World Bank 2015b). Indeed, gender drives 68 percent of the inequality in access to good jobs, defined as jobs of 20 hours or more a week. The policy implication is the need not only to increase the number of people coming into the labor market, but also to guarantee fair access to full-time, formal, permanent jobs.

Guaranteeing equality of opportunities in Azerbaijan will require that the underlying institutional, socioeconomic, and cultural causes of unfair factors, such as gender and political connections, are understood and tackled. A report of the International Labour Organization (ILO 2012) finds that the effective implementation of labor laws protecting women from discrimination remains an issue. Examining such legal barriers sector by sector is fundamental. The capacity of government bodies should be enhanced to enforce antidiscrimination regulations in labor markets.

Gender gaps in the equality of opportunity may also be perpetuated by the concentration of women in traditionally female occupations, such as low-paying service sector jobs, social work, and education. The country would benefit from policies aimed at preventing women from being siloed into low-paying occupations and at encouraging them to obtain higher-return degrees in, for instance, STEM programs (Pastore et al. 2016). Campaigns to provide vocational information and motivate women's interest in

31 Data on 2013, Enterprise Surveys (database), International Finance Corporation and World Bank, Washington, DC, http://www.enterprisesurveys.org.

STEM could be implemented in secondary education or disseminated online. Educators might look to other countries in Europe and Central Asia in implementing a more rigorous curriculum with a crosscutting focus on gender equality that may help change cultural norms.

Recommendation: *Promote job creation by removing constraints to firm growth and formalization*

The analysis also emphasizes the limited availability of good jobs in Azerbaijan. Only around a quarter of Azerbaijanis have access to good jobs (work at more than 20 hours a week). Because of the growing population entering the labor market, new sources of good jobs outside the oil and gas and public sectors need to be found. The capital-intensive sectors, mining and construction, have dominated economic growth, but account for less than 10 percent of employment. Other sectors with large potential for the creation of good jobs, such as nonoil exporting sectors, are weak (World Bank 2015a). Growth has been accompanied by expanding labor informality, which disproportionately affects the poor and lagging economic regions. The government and other stakeholders should create conditions that enable the growth and formalization of competitive firms that can expand the supply of good jobs.

While significant reforms have been introduced to improve the business climate in recent years, constraints on private sector business growth persist. These include insufficient access to financing, high tax rates, corruption, complex bankruptcy regulations, limited competition, and a lack of innovation.[32] Bureaucratic delays in electricity services, trading logistics across borders, and issuing construction permits are more cumbersome than the average in Europe and Central Asia (World Bank 2015a). Thus, boosting private sector growth requires a comprehensive response to ease bureaucratic burdens on firms, revise tax and legal distortions that affect the private sector, and enhance the government's capacity to enforce regulation. Facilitating access to credit requires fostering financial markets that are currently underdeveloped. Specific policies might embrace partial guarantees and a variety of risk-sharing mechanisms among lenders and the public sector to reduce collateral requirements and the cost of credit. Innovation could be promoted by targeted grant programs among entrepreneurs.

Diagnoses also point to a combination of institutional and economic distortions that reduce the incentives for firms to formalize and hire more workers. For example, regulations and the tax regime on SMEs limit the incentives to hire workers and, instead, promote incentives for firms to stay small and informal (World Bank 2015a). Eliminating these distortions remains a major analytical, legal, and institutional challenge.

Social protection

Recommendation: *Enhance pension sustainability, financial inclusion, and productive asset growth*

The performance in sharing prosperity has been positive in Azerbaijan. Growth has been translated, though unevenly, into poverty reduction, benefits for the middle class, higher incomes, and greater

32 Data on 2013, Enterprise Surveys (database), International Finance Corporation and World Bank, Washington, DC, http://www.enterprisesurveys.org; data on 2012, Entrepreneurship (database), World Bank, Washington, DC, http://www.doingbusiness.org/en/data/exploretopics/entrepreneurship.

consumption. However, the analysis also highlights the vulnerability of households to the risk of falling back into poverty, which affects 57 percent of the population. Employment rates are highest in agriculture and other informal sectors that are particularly prone to external shocks. Social protection and safety net mechanisms can help manage the risks and lock in the gains in mobility.

Public transfers—pensions and other social transfers—are large sources of income among households, especially in Baku and other urban areas. Nearly two-thirds of the population receive at least one public transfer, and pensions have risen steadily (World Bank 2015a). Representing 75 percent of public spending on social protection, pensions have played an important part in reducing poverty, especially because their value increased to 95 percent of the minimum subsistence level (Onder 2013). Given the growing burden of these transfers on public finances, the government must ensure the sustainability of the transfer system, while implementing policies and establishing incentives to boost labor incomes and encourage savings. Mechanisms must be undertaken to ensure that rural households are not systematically excluded from the transfer system because of their informal employment or geographical isolation.

Stakeholders should also improve the access to financial markets, including credit and agriculture sector insurance. Financial inclusion and outreach are insufficient and below the benchmarks among peers in Europe and Central Asia. Rural households, microenterprises, and SMEs are excluded from financial markets. Often small family businesses, the enterprises report selling productive assets and inventory to address cash shortages (World Bank 2015a, 2015b). The government must expand both financial services—savings, insurance, private pensions, and customized financial products for microenterprises, SMEs, and agriculture—and financial infrastructure to provide all economic regions with points of access. To meet this objective, alternative delivery channels can be leveraged in remote areas, such as the current strategy to use branches of the national postal operator, Azerpoçt. Mobile banking and other innovations can also be explored where technology requirements allow.

Urbanization

Recommendation: *Foster economic and agglomeration opportunities in urban areas other than Baku*

Improving mobility in Azerbaijan requires that economic and agglomeration opportunities be leveraged in secondary cities. While 50 percent of the population still lives in rural areas, disparities have widened between Baku and the rest of the country. While Baku has enjoyed the largest welfare gains from growth and has the largest market potential among all cities in the South Caucasus, secondary cities in Azerbaijan also have considerable market potential. Leveraging economic and agglomeration opportunities in these cities can help the people and the government seize the benefits of urbanization and improve the quality of life and the prospects for mobility among large segments of the population.

To address the constraints on urbanization and development in secondary cities, stakeholders must investigate the forces of agglomeration and dispersion. The low urbanization rates are partially incentivized by the economic dominance of the oil and gas sector, which is capital intensive and provides few employment and agglomeration opportunities. Baku remains the most attractive destination for business and investment because it is the home of the oil industry, represents a large

market, and is the center of the construction sector (World Bank 2015a). While several other cities could serve as poles of economic growth in Azerbaijan, their economies are not highly differentiated from local rural economies. Understanding the economic structure of secondary cities and the factors that may be damping economic growth in urban areas other than Baku is crucial to guiding urbanization and regional development policy.

The government might consider encouraging the movement of people to urban centers through better connectivity and, in appropriate cases, migration assistance programs. Assisting temporary or permanent migration from lagging rural economic regions to secondary cities could widen the opportunities among migrants for integration and economic and social mobility. Similarly, spatial mobility among people requires institutions that promote functioning land markets and the provision of basic public goods and services, including security, roads, school systems, and sanitation (World Bank 2009b). Mobility into cities would have to be supported by confronting the multiple dimensions and causes of urban poverty. Though rural poverty rates are higher, cities are home to a large share of the poor. In addition to a lack of human capital, factors such as housing, access to social safety nets, and labor informality can exacerbate urban poverty (World Bank 2015a). The government should adopt a strategy to provide adequate and affordable housing and basic urban infrastructure to accommodate urban populations and to eliminate bureaucratic and legal constraints that currently encourage urban sprawl and informal settlements. Urban planning will also be necessary to encourage and leverage the benefits of urbanization, while reducing disadvantages such as the costs of congestion.

Connectivity

Recommendation: *Invest in lifeline roads, modernize primary roads, and leverage ICTs*

Poor connectivity reduces growth potential, is an obstacle to mobility, and exacerbates disparities across the economic regions of Azerbaijan. Despite large investments and significant improvements, the infrastructure gaps are critical. Insufficient investment and maintenance have led to deterioration in the quality of infrastructure and basic services since independence. Fostering mobility requires that the government improve connectivity by prioritizing investments in local and regional roads, completing the modernization of primary roads, and finding new ways to connect people in remote areas.

The government must invest in the rehabilitation of local and regional lifeline roads to improve the connectivity of remote areas and disadvantaged populations. Investing in rural roads and electrification has a major impact on income-generating opportunities, employment, and even gender roles (World Bank 2016c). Poor road conditions affect the livelihoods of people across the country. The poor state of rural roads and the lack of reliable transport constrain access to health and education facilities, affecting mostly women and girls (World Bank 2015a). Improving local connectivity is also critical to increasing agricultural sales, which represent the livelihood of large sectors of the population.

To complement investments in local transport, the government should complete the modernization of key highway and railroad infrastructure. The development of major transport corridors and efficient logistics services will enhance the access to international markets, thereby increasing competitiveness and opening new income opportunities by, for example, capitalizing on Azerbaijan's

strategic geographical position to attract regional cargo transit (World Bank 2015a). ICTs represent another mechanism to improve connectivity and bring disperse populations closer together. They can assist households to use their assets more productively, for example, by facilitating business transactions and trade. The penetration of ICTs can also facilitate other policies that favor mobility and shared prosperity, for instance, the introduction of a government one-stop-shop, the provision of basic services, including education, in remote areas, and new, more effective data collection strategies. Improvements in competition and legal reforms will be necessary to reduce the cost and increase the availability of ICTs in Azerbaijan (World Bank 2015a).

Basic services

Recommendation: *Eliminate spatial gaps in access to basic services*

The analysis highlights spatial disparities in the access to basic services. While the residents of Baku enjoy near universal access to drinking water and heating, the provision of these services is limited among rural populations. Similarly, spatial and income differences determine children's access to basic inputs for human capital accumulation, such as water and sanitation. Disparities in service provision can also affect development outcomes, such as public health, and the growth and productivity of local businesses.

Weak institutional capacity, budget imbalances, and lack of accountability are the major binding constraints on basic service delivery in Azerbaijan (World Bank 2015a). Public spending should be realigned to focus on regional development and to target local needs. Achieving this objective requires the implementation of a methodology to measure service delivery and efficiency. The government is currently unable systematically to identify gaps and disparities in access to basic services because of the lack of measurement data. Initiatives to engage local communities and improve the funding and autonomy of municipal authorities would also raise the accountability and responsiveness of public services to local needs. However, caution would be required to avoid perpetuating spatial disparities in lagging economic regions that may have weaker municipal capabilities and fragile social accountability mechanisms.

Georgia

After experiencing hardship during the postindependence period, Georgia has performed well over the past decade. The expansion of economic opportunities and social programs helped lift Georgians out of poverty at impressive rates and improve the overall well-being of the population. Today, Georgia's small open economy is facing the challenge of sustaining growth in a context of vulnerability to external shocks, demographic challenges, a reduced fiscal space, and growing debt. Despite achieving middle-income status, the government and people of Georgia have not yet been consolidated into a middle-class society. Many households remain vulnerable, with incomes close to the poverty line. Sustaining poverty reduction, sharing prosperity, and strengthening the middle class will require that Georgia adjust and refine the growth paradigm (World Bank 2018a).

Review of the main constrains on mobility

Low fertility rates and migration outflows have resulted in Georgia's shrinking population, which, along with disparities across the country's regions, hinders urbanization and agglomeration opportunities. Economic activity is concentrated in Tbilisi and along route E60. In contrast, the regions east of Tbilisi and, especially, rural areas are experiencing slow economic growth and the highest poverty rates in the country, while inequality has been widening more rapidly in secondary cities. Long travel distances and economic structural differences separate Tbilisi and other urban centers. Other spatial disparities are evident in the distribution of pensions and transfers, the quality of education, changes in consumption patterns, and agricultural productivity. These disparities are hurting lagging regions and hindering poverty reduction despite rising average incomes.

Georgia has seen significant poverty reduction over the last decade. However, substantial churning suggests that households that have temporarily escaped poverty are struggling to maintain their position. While roughly 40 percent of the population were never poor between 2009 and 2015, chronically poor households represented nearly 60 percent of the poor and one eighth of all Georgians in 2015. Better opportunities in the labor market were the key source of income growth among the 9 percent of the population that managed to escape poverty. In contrast, higher social transfers were important in supporting the incomes of the chronic poor, but insufficient to lift them out of poverty. Chronic poverty remains both an urban and a rural phenomenon. Georgia presents the worst social mobility indicators in the South Caucasus as proxied by the association in educational attainment across adults and their parents. Yet, the prospects for greater upward mobility in rural areas and regions other than Tbilisi suggest that some degree of catching up in social mobility mechanisms has occurred.

A moderate share of the inequality in the access to good jobs is unfair in Georgia (34 percent in the case of access to jobs with 20 hours of work or more a week, compared with a 47 percent average among the 34 sampled countries). Parental educational attainment is an important unfair factor, driving 20 percent to 30 percent of the inequality in access to good jobs, while gender plays a lesser role in Georgia relative to other countries in the region. Age—a fair component as a proxy for work experience—is highly significant, accounting for 21 percent of the inequality in access to some good jobs. Educational disadvantages seem to emerge in Georgia early in the life of children. Despite near-universal attendance and significant improvements in average levels of education (as measured by PISA test scores), learning outcomes vary dramatically by the socioeconomic status of children, though there are large gender and urban-rural differences.

Policy recommendations

The results of the mobility assessment can inform Georgia's current policy priorities in readjusting its growth model and ensuring that all individuals, regardless of their geographical or socioeconomic situation, have the opportunity for a better future. In particular, removing the constraints to mobility in Georgia will require policy solutions to maximize and leverage human capital resources by improving the quality of education and skills, tackling unequal treatment in the access to labor markets, helping businesses grow and become more productive, leveraging agglomeration opportunities, connecting all regions of the country, equalizing standards of living and basic services across regions, and reinvigorating stagnant rural areas.

Human capital

Social and economic mobility is closely linked with human capital accumulation in Georgia. A declining population and stagnant labor productivity are raising the need to leverage the talents, qualifications, and skills of all Georgians to move forward toward the twin goals of reduced poverty and shared prosperity (World Bank 2018a). Efforts to assess and ensure equal opportunity to learn and to provide all Georgians with relevant skills are fundamental to these objectives.

Recommendation: *Assess and ensure equality of opportunity to learn within the education system*

While access to education is not a major constraint in Georgia, the quality of the education is poor. In addition to overall poor learning outcomes, the mobility analysis reveals the existence of learning inequalities linked to children's socioeconomic, gender, and geographical conditions. Improving the quality of the education system and eliminating unfair disparities in learning outcomes are essential in fostering human capital accumulation and guaranteeing equality of opportunities in Georgia.

The poor quality of basic education in Georgia may be associated with poor teacher performance, outdated curricula, and the limited quality and coverage of early childhood education (World Bank 2018a). Mobility and shared prosperity require that the education system be a spatially and socially blind institution to provide all with equal opportunities to learn. Georgia would benefit from complementing systemwide policies—for example, updating curricula and improving teacher selection and incentive mechanism—with targeted interventions to eradicate unfair sources of inequality, such as initiatives to expand access to early childhood education in rural areas or interventions to investigate and target particular groups in the population, for instance, girls and lower-income households.

Policies to improve learning outcomes must be based on assessments of learning and action on the assessment evidence to guide practice in schools and to align the large range of agents in the education system toward more effective learning (World Bank 2018b). As a necessary condition to implement any policy strategy successfully, Georgia should therefore invest in assessing the quality of the education system and the spatial and socioeconomic disparities in learning outcomes.

Exercises such as the recent adoption of the human capital index can help in the research not only on learning outcomes, but also on the broader learning opportunities among children. Georgia is among the early adopters of the human capital index, which expresses the overall human capital that children will accumulate by the time they reach age 18 relative to total potential human capital accumulation (see appendix E, page 105). The Index adjusts educational attainment by learning outcomes and incorporates other indicators to approximate health and quality of life outcomes that affect the ability of boys and girls to accumulate human capital throughout the life cycle (World Bank 2019).[33] Periodically updating the components of the human capital index across the regions of the country can help assess and monitor learning outcomes and opportunities and inform programs in the education system and other gender and social policy areas.

33 According to the first calculation of the human capital index, children born in Georgia use 61 percent of their human capital potential by the time they reach age 18. The components of the index highlight that the adult survival rate is lower than expected, especially among boys. See "Human Capital Project," World Bank, Washington, DC, http://www.worldbank.org/en/publication/human-capital.

Recommendation: *Provide students and workers with relevant skills*

Providing individuals with the necessary skills to leverage employment opportunities throughout the life cycle is essential for mobility because it contributes to reduce poverty sustainably and strengthen the middle class. However, a gap between the skills provided by the education system and those expected by employers hinders the potential of human capital and labor opportunities in Georgia.

Employers point to the lack of skills as a constraint to doing business in Georgia. However, 40 percent of the unemployed population hold higher-education degrees (World Bank 2018a). The need to match skills supplied with those required by the labor market is clear. Updating curricula at universities in areas such as science, research and development, and engineering is important (World Bank 2018a). The demand of employers to upgrade soft skills in particular can be addressed from an early age and across the education system because soft skills, such as languages, leadership, and adaptation, can reinforce the learning potential of children in other areas.

The lack of occupation-specific skills has also been identified as a constraint to growth in key sectors, such as tourism, textiles, and energy (World Bank 2018a). Incorporating training in these and other skills in vocational education and on-the-job programs can help improve the earnings potential of workers, raise sectoral productivity, and introduce positive spillovers to other industries. For example, hospitality training could raise the tourism potential in lagging regions. Reducing the gaps in digital skills likely requires the inclusion of relevant subjects into formal education curricula and interventions to target workers or unemployed individuals through training programs. Close dialogue and collaboration between employers and education authorities would ensure the ongoing relevance and adaptation of skills-oriented education and training programs.

Labor markets

Recommendation: *Reduce the barriers to equality of opportunity in the access to jobs*

The unfair factors, that is, factors outside the control of individuals, involved in the inequality in the access to good jobs in Georgia create distortions in labor markets and hinder the opportunity of individuals to achieve a better future. Though the contribution of unfair factors to inequality is less severe in Georgia than in other countries in Europe and Central Asia, parental educational attainment, work experience, and gender still help determine the access to good jobs.

In addition to a shrinking population, Georgia suffers from low labor force participation and a high share of individuals not in education, employment, or training (World Bank 2018a). Though many factors may influence this result, including incentives in labor markets and social protection systems, the mobility analysis finds that inequality in opportunities and perceptions of the unfair determinants of labor outcomes among the population may discourage individuals from participating in the labor market.

The government and other stakeholders should identify policies to match talent and skills with jobs, while reducing the influence of unfair factors. For example, promoting internship or trainee programs could help youth who are not in education, employment, or training and other work-inexperienced

candidates to overcome age and experience barriers in the access to good jobs. Encouraging leading firms to allow and review job applications that are submitted anonymously could also be tested to reduce the influence of gender or parental characteristics in hiring processes. Providing information, career advice, and job placement services, for instance, through a web portal or public employment service, could help motivate job-seekers, reduce frictional unemployment (the unemployment that exists in any economy because some people are transitioning between jobs), and improve the matching of skills with employer demand. While less significant in Georgia than in other countries, gender barriers require the underlying cultural, legal, and institutional causes to be addressed. In particular, the government could improve its policies to support households in meeting childcare and eldercare responsibilities (World Bank 2018a). Traditionally viewed as a role of women, these responsibilities may translate into women's decision not to participate in the labor market or to take up lower-quality jobs.

Social protection

Recommendation: *Consider expanding the outreach of targeted social assistance*

External shocks represent a major threat to mobility because they add greatly to the risk that vulnerable and even middle-class households will fall back into poverty. They can also reduce the accumulation of household assets, including human capital, thereby curtailing the opportunities for social and economic mobility among households. In Georgia, significant churning around the poverty line suggests that many households are struggling to escape poverty sustainably and are vulnerable to income shocks.

Social protection and safety nets can contribute to improving household resilience and to locking in the gains in mobility. As the analysis highlights, social assistance and pensions are already significant sources of household income in Georgia. While pensions contribute significantly to household incomes across the country, there are major spatial disparities and regressive effects because the coverage of pension benefits is concentrated in leading regions. The lagging regions east of Tbilisi receive fewer benefits from the pension system. While a comprehensive analysis of the pension system in Georgia is outside the scope of this report, indexing to the average wage in each region and other methods could be used to address spatial disparities through the pension system (Dorfman et al. 2013). The coverage and benefits of the Targeted Social Assistance Program—already an important safety net mechanism to stabilize household incomes during the 2007–10 crises in Georgia—have been expanded. The government should continue to implement the current policy agenda to improve the targeting and efficiency of the program and leverage the complementarity and administrative capacity of the program to launch other interventions and training and job search activities (World Bank 2018g).

Savings and insurance products can also act as social protection mechanisms to help households cope with unfavorable events. Bank savings rates are low in Georgia. They are discouraged by the lack of deposit insurance, the lack of confidence in the national currency, and the preference for real estate investment. The insurance sector is also underdeveloped and is characterized by high costs and capital weaknesses. Health insurance dominates the market, while insurance products for agriculture are scarce (World Bank 2018a). Reforms to introduce deposit insurance will likely increase the availability of savings, reduce the costs of capital, and contribute to the development of financial

markets. The government could also implement subsidies programs and specific microfinance products to reach poor and vulnerable households and encourage them to bank their savings. The lack of insurance markets may be addressed by subsidizing coinsurance schemes among farming households and larger agricultural producers.

Business development

Recommendation: *Foster good jobs by supporting growth, productivity, and formalization among firms*

Labor incomes, particularly formal wage earnings, have been the main contributor to the effort to reduce poverty sustainably and grow a middle class in Georgia. However, the creation of formal, high-productivity jobs has been weak. As the analysis highlights, only around 40 percent of Georgians work more than 20 hours a week, and most workers are concentrated in informal, low-productivity activities. Boosting the transition toward better jobs that can provide higher and more stable incomes to households requires that the constraints on the productivity, growth, and formalization of firms are understood and tackled.

Georgia is a top reformer in the quality of the business environment owing to pro-market and governance reforms in taxation, anticorruption initiatives, and other areas. Despite the favorable conditions for doing business, private sector investment and growth are still hampered by dysfunctional land markets, insufficient depth and inclusion in financial services, inadequate bankruptcy regulations, and skill mismatches in the labor market (World Bank 2018a). In addition to skills upgrading and matching policies discussed above, the government and other stakeholders should investigate and confront these and other structural constraints to the growth of firms, as well as the incentives and barriers to the registration of firms that perpetuate informality and the large incidence of low-productivity self-employment. In addition to investigating and tackling horizontal or economy-wide constraints, the government should consider targeting bottlenecks in key sectors, such as agriculture, tourism, and textiles.

Georgian businesses can be characterized by limited innovation and poor management skills. The relatively small size of the domestic economy, along with expertise and management deficiencies among firms, restricts production at scale, the adoption of new technologies, and adherence to high quality standards. Export firms are also small and face high discovery costs to diversify products and reach new markets (World Bank 2018a). Boosting foreign direct investment and the integration of Georgian firms in global value chains may help reduce these barriers by exposing firms to fresh information and expertise, new management skills, international quality standards, and so on.

Insufficient access to credit is a major constraint on business growth, especially for SMEs, which account for over 40 percent of employment, but generate only 20 percent of GDP and represent 20 percent of the annual volume of bank loans (World Bank 2018a). The high cost of credit and collateral requirements result in low demand among SMEs for bank credit. Most SMEs raise financial resources through family and friends. Tackling this constraint likely requires horizontal reforms to establish financial stability and diversification by introducing sound deposit insurance and developing capital markets and the nonbanking sector, along with policies to manage risks and reduce the cost of credit among SMEs, for example, through partial credit guarantees or customized financial products

(World Bank 2018a). Financial inclusion can help firms take on bulky but profitable investments that can then be translated into economic dynamism and good jobs.

Connectivity and basic services

Recommendation: *Maintain efforts to improve connectivity and provide equal access to basic services*

The analysis shows that economic activity is concentrated in major urban areas and along the east-west route E60. Geographic isolation and poor connectivity increase travel times and hinder market potential and spatial mobility in secondary cities and rural areas. Connectivity is a major pillar of mobility. It is essential to integrate all people and regions of Georgia into the process of economic development and shared prosperity. It is complementary to other policies on mobility because it facilitates trade, opens labor and income opportunities, and increases the returns to other household assets, including human capital.

Georgia has seen major improvements in the transport network, but gaps remain in hard and soft infrastructure. The national highway system and railway network have been expanded, and upgrades in the east-west highway will benefit urban centers and the connectivity with world markets. However, secondary and local road networks are still in poor condition and awaiting relevant projects (World Bank 2018a). Implementing the extensive agenda of the government to improve connectivity, including building and maintaining roads in rural areas, is fundamental to connecting all regions within the country, fostering competitiveness in tradables and tourism, and improving the overall quality of life among rural populations. As the government adopts legal instruments to enable private sector participation in infrastructure projects, for example, through the public-private partnership framework enhancing institutional capacity in the public sector to prioritize projects, assess and manage risks, and implement and supervise infrastructure projects is necessary to seize all the benefits of greater mobility and the larger fiscal space.

The government and other stakeholders could leverage ICT to integrate peoples and regions. Progress has been made in the affordability of ICT services and their usage by government entities. The use of the Internet has increased, but rural areas are still poorly connected. Mobile network coverage, the coverage of sufficient Internet bandwidth, and integration of ICT in business practices are lagging and should be improved (World Bank 2018a). Digital connectivity has the potential to boost economic activities in isolated areas, for example, by allowing for payment transactions and tourism communications and bookings. Poor logistics constitute another major connectivity bottleneck in trade and the integration with global value chains. As an important component of connectivity, the government should ensure the availability of appropriate logistics services to accommodate the increasing traffic and seasonal congestion in major transport corridors, airports, and ports.

Even though economic growth and production may remain unbalanced across the country's regions, the government and other stakeholders can still promote inclusive development and more uniform livings standards across the population and regions through basic services (World Bank 2009b). Tackling spatial disparities in access to these services, including electricity and drinking water, will allow living standards to be improved equitably across regions. As basic inputs for the accumulation

of human capital and the leveraging of other household assets, basic services can also contribute to the equality of opportunity among children and households.

Urbanization and spatial development

Leveraging all available resources means that Georgia must rethink its spatial development policies (World Bank 2018a).

Recommendation: *Identify and reduce the barriers to urbanization and development in secondary cities*

Promoting urbanization and leveraging agglomeration opportunities remains an important policy challenge in Georgia. Knowledge gaps persist in understanding (1) the factors that are hindering internal mobility and urbanization and (2) the main bottlenecks in development and mobility in secondary urban centers.

The analysis reveals the existence of important disparities in economic performance and development indicators between Tbilisi and the rest of the country. Although conditions are better in urban areas, the urban dynamism and job opportunities are still insufficient as pull factors to incentivize people to migrate to urban areas. This results in shrinking villages that depend on subsistence farming and transfers, while the potential of secondary urban centers for agglomeration benefits and scale economies remains depressed (World Bank 2018a). Little is known about this phenomenon and the potential factors hindering urbanization in Georgia.

First, the government and other stakeholders should identify and reduce the constraints that impede the spatial mobility from rural to urban areas. Possible factors hindering urbanization include constraints on internal mobility and limited opportunities and planning in urban centers (World Bank 2018a). Among problem areas are the high congestion costs in Tbilisi, weaknesses in land markets that foster depressed land prices and discourage mobility to more expensive urban areas, limited educational attainment among potential migrants, insufficient employment creation in urban centers, and limited housing availability. The high levels of urban pollution are related to inadequate energy use in construction, old and energy inefficient infrastructure; and the absence of technical inspections on vehicles (World Bank 2018a).

Second, understanding and addressing the constraints on development in urban centers other than Tbilisi are essential. Deeper research into the economic activity in smaller cities would help highlight underlying problems. Understanding regional disparities in productivity—for example, what drives the higher productivity in the northeast border area—would also be valuable.

Third are the issues related to the long-term status of cities and towns in Georgia. World Development Report 2009 emphasizes that every global region and every country represents a portfolio of places that differ in the degree of urbanization and economic activity (World Bank 2009). Following this approach, it is unclear how many cities of scale can be sustained by Georgia in the long run. Regional development policy in Georgia should be based on an understanding of the long-term patterns of concentration of industry and services in Tbilisi and other cities and an assessment of the number of cities that can grow sustainably and provide opportunities for agglomeration. Tackling the barriers that

are hindering urbanization and mobility from rural areas and planning for the sustainable development of secondary urban centers, along with considering possible migration assistance programs, could help Georgia seize the full benefits of urbanization.

Recommendation: *Promote higher-productivity agriculture and opportunities in emerging sectors*

The analysis shows that poverty rates are highest in rural areas east of Tbilisi. Agriculture remains the largest employer in all regions outside Tbilisi. Chronically poor households and lagging regions often rely on low-productivity subsistence agriculture that produces stagnant returns. In addition to migration to urban centers, the government could improve the mobility of rural populations by modernizing agriculture and leveraging the potential in tourism.

The agrifood industry represents an untapped commercial potential in Georgia because of the country's fertile land, abundant water resources, favorable agroclimatic conditions, and access to markets in China, the Commonwealth of Independent States, and the European Union that are characterized by growing demand for high-value fruits and vegetables. Policies to support irrigation and enforce compliance with food safety and quality standards, reforms to formalize property rights in land markets and address land fragmentation, and strategies to promote commercialization and develop agrocredit markets are essential to unleashing productivity and competitiveness in agriculture (World Bank 2018a). While it is unrealistic to believe that every farming household will be able to carry out the necessary investments to succeed in high-productivity agriculture, supporting the agribusiness sector can still provide high-quality salaried jobs to a large share of the rural poor and the middle class. In implementing this strategy, the government could benefit by attracting foreign direct investment and expertise. Successful past experiences with hazelnuts and tangerines could be analyzed, along with the experience of Samtskhe-Javakheti in transitioning to high-productivity agriculture and reducing rural poverty. Economic activities other than agriculture are limited in rural areas. The government could study ways to leverage initial success in emerging sectors such as tourism and apparel (World Bank 2018g) that could generate new income and opportunities for mobility in rural areas and lagging regions. In all these cases, the implementation of connectivity improvements is a necessary condition.

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Appendix A: Correlates of finding waged employment, Georgia, 2009 –15

Education and gender are the most important characteristics that divide the workers who obtained a job from those who stayed without a job (table A.1).

Table A.1: **Ordinary Least Squares Regression Results**

Dependent variable: 0 = did not have any employment in 2009 and 2015; 1 = transitioned from out of employment in 2009 to waged employment in 2015.

		National sample	*Only chronic poor and escapers*
Education	Primary or less (Base)		
	Secondary	0.207***	0.224**
		(0.068)	(0.096)
	Vocational	0.330***	0.371***
		(0.071)	(0.101)
	Higher	0.354***	0.329***
		(0.069)	(0.110)
Age	18–30 (Base)		
	31–40	0.033	0.003
		(0.050)	(0.096)
	41–50	0.048	0.105
		(0.049)	(0.096)
	51–60	−0.100**	0.032
		(0.048)	(0.097)
	61+	0.041	−0.039
		(0.057)	(0.115)
Gender	Female	−0.235***	−0.217***
		(0.031)	(0.057)
Region	Rural (Base)		
	Other urban	0.057	0.052
		(0.039)	(0.070)
	Tbilisi	0.136***	0.286***
		(0.038)	(0.069)
	Constant	0.160**	0.036
		(0.070)	(0.100)
N		896	244
R^2		0.1402	0.2747

Standard error in parenthesis, *p < .10 **p < .05 ***p < .01
Source: World Bank elaboration based on the Welfare Monitoring Survey 2009, 2015.

Appendix B: Altham statistic

In measuring intergenerational mobility in terms of educational attainment, we follow a framework developed by Long and Ferrie (2013). The main instrument for this framework is the transition matrix: a square matrix in which the numbers of columns and rows are equal to educational attainment categories. The matrix elements show allocation of children's educational attainment in each parent educational attainment categories. The measure of intergenerational mobility exploits the difference in features of transition matrices across contexts, in this case countries.

For illustration, suppose we have transition matrix P and Q, where the columns are fathers' educational attainment and rows children's.

$$P=\begin{bmatrix}3 & 1\\ 2 & 2\end{bmatrix} \text{ and } Q=\begin{bmatrix}2 & 1\\ 6 & 1\end{bmatrix} \quad \text{(B.1)}$$

The first thing to do is to transform these matrices to have similar marginal frequencies, to eliminate some fundamental differences between P and Q such as the amount labor required for a certain job. Suppose, we multiply the first row of Q by 2 and the first column by ½ and leave P as is.

$$P=\begin{bmatrix}3 & 1\\ 2 & 2\end{bmatrix} \text{ and } Q'=\begin{bmatrix}2 & 1\\ 6 & 1\end{bmatrix} \quad \text{(B.2)}$$

The cross product of P, that is $p_{11}p_{22}/p_{12}p_{21}$, is 3 and similarly for Q' 1/3. We, however, reinterpret the cross product by rearranging $p_{11}p_{22}/p_{12}p_{21}$ into $(p_{11}/p_{12})/(p_{21}/p_{22})$: the ratio of the odds that children with education 1 fathers ends up in education 1 (that is 3/2) to the odds that children with education 2 fathers ends up in education 1 (that is ½), which is equal to 3. Since cross product of P is greater than of Q', P exhibits lower mobility.

We calculate the summary of full-set of cross-products in more than 2X2 matrix using Altham (1970) statistics. Specifically, for two matrices, P and Q, with r rows and s columns:

$$d(P,Q)=\left[\sum_{i=1}^{r}\sum_{j=1}^{s}\sum_{l=1}^{r}\sum_{m=1}^{s}\left|\log\{(p_{ij}\,p_{lm}\,q_{im}\,q_{lj})/(p_{im}\,p_{lj}\,q_{ij}\,q_{lm})\}\right|^2\right]^{1/2}, \quad \text{(B.3)}$$

To find which one between P and Q has higher mobility, we replace one table with matrix of ones, J, indicating perfect mobility, and calculate $d(P,J)$ and $d(Q,J)$. If $d(P,Q)>0$ and $d(P,J)>d(P,Q)$, then mobility is greater in Q.

Appendix C: The HOI methodology

The human opportunity index (HOI) has been developed as part of the World Bank initiative to measure the equitable provision of opportunities among children. Since its introduction, the HOI methodology has been used widely in the literature to analyze the inequality of opportunity among children (see, for example, Dabalen et al. [2015] for applications in Africa and Krishnan et al. [2016] for applications to the Middle East and North Africa). The key premise of equality of opportunity among children is that basic services providing critical human capital development inputs—such as quality education, good health care, or water and sanitation—should be available to all children, irrespective of their birth circumstances, including gender, urban-rural residence, parental wealth, and so on. Thus, equality of opportunity means that the playing field should be level, and basic opportunities should be independent of initial circumstances. The HOI methodology is one tool to measure the extent to which reality deviates from this ideal.

In general, the HOI for a given opportunity—for example, access to quality education—is a single index that captures both the opportunity's universality (the share of children who enjoy the opportunity) and any inequality in access (variations according to circumstances in access among children to the opportunity). The penalty factor arises if the inequality in access is calculated based on an index of dissimilarity (D-index), which equals zero if the access to opportunity is independent of the circumstances of respondents. The underlying purpose of constructing the HOI is to generate a scaled measure that rises as opportunity increases but falls as inequality becomes wider in the coverage among groups characterized by differences in circumstances. Once an index score has been obtained, a Shapley decomposition procedure is applied to apportion the inequality across various circumstances.[34] Although causality cannot be ascribed through the Shapley decomposition; quantitative statements may be made, such as that a certain percent of the inequality in opportunity, for example, access to school, is associated with children's circumstances, such as gender, birth location, and so on.

More formally, the inequality-adjusted coverage rate, H, is defined as follows:

$$H=\overline{C}(1-D), \quad \text{(C.1)}$$

where $\overline{C}$ represents the coverage rates of access to good jobs, and D is the dissimilarity index (D-index), calculated as follows:

$$D=1/_{2\overline{C}}\ \Sigma^{m}_{k=1}\ \alpha_k|\overline{C}-C_k|, \quad \text{(C.2)}$$

where k is a type of circumstances-group; C_k is the coverage rate of group k; α_k is the share of group k in the total labor force; and m is the number of circumstances-groups.

34 The Shapley decomposition in Shorrocks (2013) is a method to overcome the problem that a change in a dissimilarity scalar measure because of the addition of a circumstance depends on the initial set of circumstances that are changed. In this procedure, intuitively, the effect of a circumstance is calculated as the average value of all changes that occur if the circumstance is added to all possible subsets of initial circumstances.

Appendix D: **Probit regression analysis**

Respondents' and parents' education appear to have a large contribution to inequality in the labor market using the HOI approach, especially in Georgia. Do other variables play a role in the previous stage, of accessing good jobs? To check this, we run a probit regression analysis of access to good jobs on respondent's age, education, gender, parents' education, parents' political affiliation, and ethnicity.

The observable implication if respondents' and parents' educational attainment drives most of the dispersion in accessing good jobs is that these variables have a jointly significant effect on the dependent variable of access to good jobs. Also, adding these variables to the model significantly increases the probit model goodness of fit (pseudo R-square). The regressions show that in all specifications, the jointly hypothesis test for zero effect of respondents' and parent's education on good jobs is rejected (see the result of the test at the bottom of tables D.1–D.3). In addition, including respondents' and parents' educational attainment generally increases the pseudo R-squared substantially.

Table D.1: **Probit Regression, Dependent variable: Working 20 or more hours a week**

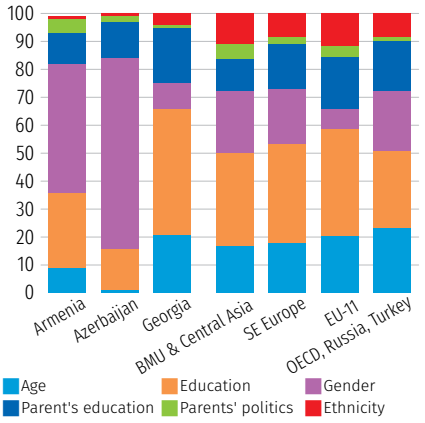
	Armenia		*Azerbaijan*		*Georgia*	
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Age	0.0125**	0.00945	0.00782	0.00942	0.0144***	0.0118*
	(0.00437)	(0.00491)	(0.00515)	(0.00563)	(0.00431)	(0.00467)
Male=1	0.588***	0.692***	1.374***	1.365***	0.183	0.199
	(0.114)	(0.120)	(0.122)	(0.136)	(0.109)	(0.114)
Parent communist=1	0.198	0.126	0.424*	0.406*	-0.0285	-0.190
	(0.155)	(0.151)	(0.180)	(0.180)	(0.140)	(0.147)
Dummy ethnicity	Yes	Yes	Yes	Yes	Yes	Yes
Dummy respondent's education		Yes		Yes		Yes
Dummy parent's education		Yes		Yes		Yes
Observations	898	855	992	855	904	869
Pseudo R-squared	0.0537	0.0955	0.197	0.227	0.0247	0.0800
Joint hypothesis test: Coefficients on respondent and parents' educational attainment = 0						
df		23.43		16.49		54.41
chi2		9		7		10
Prob > chi2		0.01		0.02		0.00

Standard error in parenthesis, robust, * p<0.05 ** p<0.01 *** p<0.001

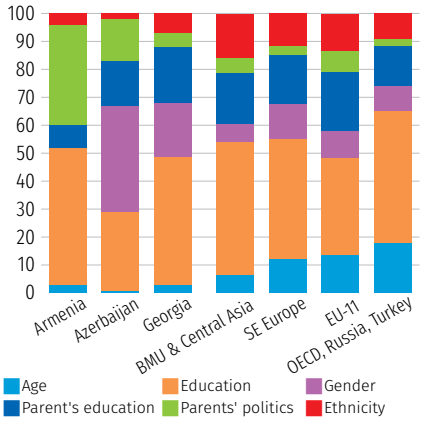
Figure D.1: **Decomposition of inequality in access to good jobs, by work experience in relevant industry**

Working 20 hours or more per week

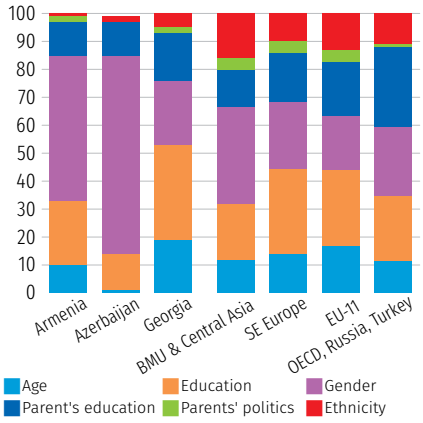
a. All industries



b. Industries where experience matters

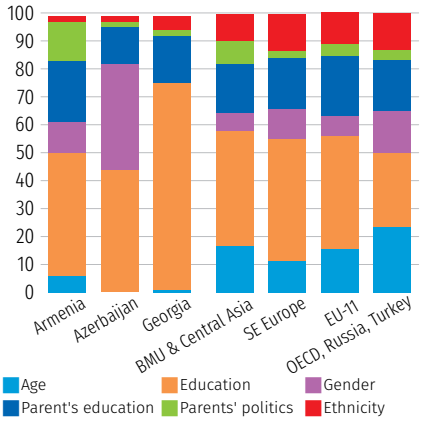


c. Industry where experience less matters

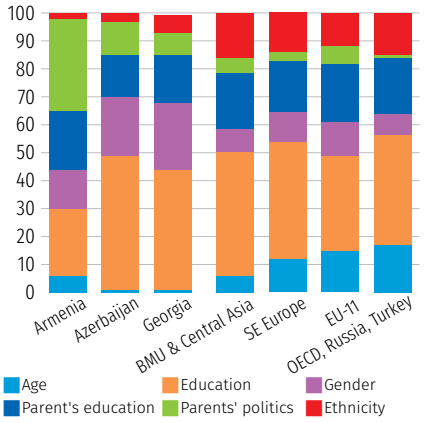


Working 20 hours or more per week, with contract

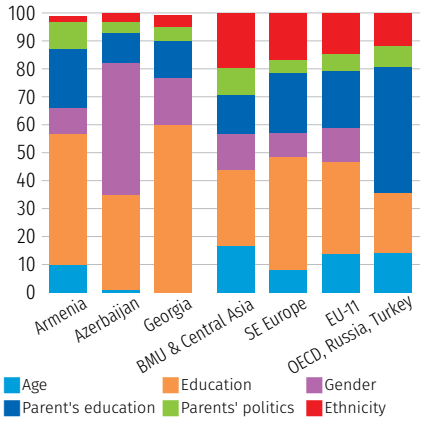
a. All industries



b. Industries where experience matters

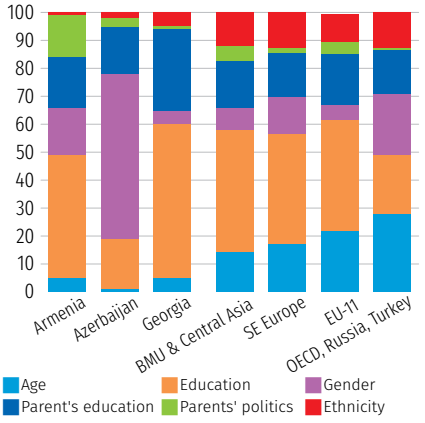


c. Industry where experience less matters

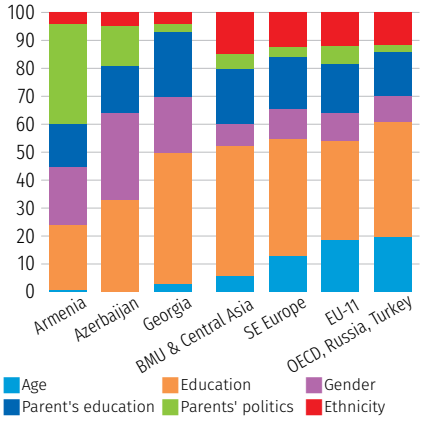


Working 20 hours or more per week, with tenure

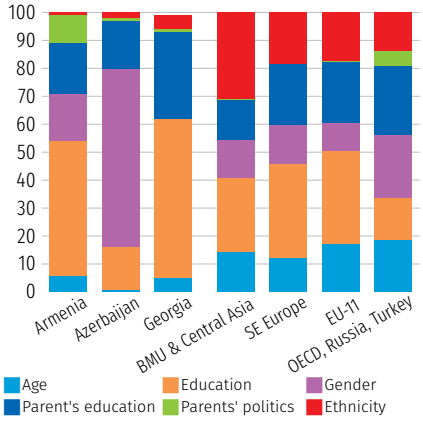
a. All industries



b. Industries where experience matters



c. Industry where experience less matters



Source: Fuchs, Tiwari, and Shidiq 2018. Note: BMU and Central Asia = Belarus, Moldova, Ukraine, Kazakhstan, the Kyrgyz Republic, Mongolia, Tajikistan, and Uzbekistan. SE Europe = Albania, Bosnia-Herzegovina, Cyprus, Greece, Kosovo, FYR Macedonia, Montenegro, and Serbia, EU-11 = Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia. OECD, Russia, Turkey = Germany, Italy, Russian Federation, and Turkey.

Table D.2: **Probit Regression, Dependent variable: Working 20 or more hours a week, with contract**

	Armenia		*Azerbaijan*		*Georgia*	
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Age	0.00817	0.00598	0.00117	0.00417	0.00257	-0.00207
	(0.00475)	(0.00551)	(0.00579)	(0.00665)	(0.00489)	(0.00548)
Male=1	0.213	0.297*	0.610***	0.591***	0.00694	0.0518
	(0.127)	(0.131)	(0.138)	(0.150)	(0.128)	(0.130)
Parent communist=1	0.433**	0.281	0.272	0.118	0.0669	-0.152
	(0.167)	(0.163)	(0.219)	(0.218)	(0.148)	(0.163)
Dummy ethnicity	Yes	Yes	Yes	Yes	Yes	Yes
Dummy respondent's education		Yes		Yes		Yes
Dummy parent's education		Yes		Yes		Yes
Observations	885	844	992	855	904	844
Pseudo R-squared	0.0285	0.0928	0.0516	0.118	0.00951	0.0878
Joint hypothesis test: Coefficients on respondent and parents' educational attainment = 0						
df		33.52		31.27		41.43
chi2		9		7		8
Prob > chi2		0.00		0.00		0.00

Standard error in parenthesis, robust, * p<0.05 ** p<0.01 *** p<0.001

Table D.3: **Probit Regression, Dependent Variable: Working 20 or more hours a week, with tenure**

	Armenia		*Azerbaijan*		*Georgia*	
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Age	0.00643	0.00308	0.00455	0.00708	−0.00393	−0.00751
	(0.00465)	(0.00517)	(0.00519)	(0.00562)	(0.00575)	(0.00608)
Male=1	0.256*	0.308*	1.167***	1.129***	−0.0977	−0.128
	(0.125)	(0.129)	(0.127)	(0.138)	(0.144)	(0.146)
Parent communist=1	0.371*	0.281	0.501**	0.460*	0.0417	−0.141
	(0.162)	(0.156)	(0.181)	(0.181)	(0.162)	(0.183)
Dummy ethnicity	Yes	Yes	Yes	Yes	Yes	Yes
Dummy respondent's education		Yes		Yes		Yes
Dummy parent's education		Yes		Yes		Yes
Observations	898	855	992	855	895	837
Pseudo R-squared	0.0237	0.0676	0.154	0.188	0.00724	0.119
Joint hypothesis test: Coefficients on respondent and parents' educational attainment = 0						
df		25.11		23.62		43.53
chi2		9		7		8
Prob > chi2		0.00		0.00		0.00

Standard error in parenthesis, robust, * p<0.05 ** p<0.01 *** p<0.001

Appendix E: The human capital index

The first version of the human capital index was released through the Human Capital Project of the World Bank in October 2018. The Index attempts to capture the amount of human capital that a child can expect to attain by age 18.

The project measures three components:

1. *Survival.* Measured by the under-5 mortality rate.

2. *Expected years of learning-adjusted school.* Captures the quantity of education that a child can expect to obtain by age 18, adjusted by a measure of quality in learning (based on the country's relative performance on international student achievement tests).

3. *Health.* Comprises two indicators of a country's health environment:
   a. Rate of stunting of children ages under 5
   b. Adult survival rate, defined as the proportion of 15-year-olds expected to survive until age 60.

The resulting index ranges from 0 to 1. As interpretation example, a score of 0.70 signals that a child born today can expect her productivity as future worker to be 30 percent below her full potential productivity with complete education and full health. The Index is also linked to real differences in countries' income in the long-run. A score of 0.50 suggests that gross domestic product (GDP) per worker in that country could have been twice as high, under the benchmark of complete education and full health.

Source: World Bank 2019.

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