

Country Economic Memorandum

Georgia: Seizing the Opportunity to Prosper



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Seizing the Opportunity to Prosper

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Abbreviations & Acronyms

B40	Bottom 40 Percent	IDA	International Development Association
BEEPS	Business Environment and Enterprise Performance Survey	IDPs	Internally Displaced Persons
BCP	Business Continuity Plans	IFC	International Finance Corporation
BIS	Bank for International Settlements	IFRS	International Financial Reporting Standards
CAD	Current Account Deficit	JSC	Joint Stock Company
CAB	Current Account Balance	LCs	Letters of Credit
CASPAR	Caspian Shipping Service Providers	LFPR	Labor Force Participation Rate
CAGR	Compound Annual Growth Rate	MDGs	Millennium Development Goals
CEM	Country Economic Memorandum	MFI	Microfinance Institution
CIS	Commonwealth of Independent States	MSMEs	Micro, Small and Medium Enterprises
CPS	Country Partnership Strategy	NCTS	New Computerized Transit System
CTC	Caucasus Transit Corridor	NBFI	Non-Bank Financial Institution
DCFTA	Deep and Comprehensive Free Trade Area	NIIP	Net International Investment Position
EBRD	European Bank for Reconstruction and Development	NGO	Non-governmental Organization
ECA	Europe and Central Asia	NSDC	National Skills Development Cooperation
ECMT	European Conference of Ministers of Transport	OECD	Organisation for Economic Co-operation and Development
EIB	European Investment Bank	PISA	Program of International Student Assessment
ETI	Enabling Trade Index	PPP	Purchasing Power Parity
EU	European Union	REER	Real Effective Exchange Rate
FDI	Foreign Direct Investment	R&D	Research and Development
FTA	Free Trade Agreement	SMEs	Small and Medium Enterprises
GDP	Gross Domestic Product	SOE	State Owned Enterprises
GEM	Global Entrepreneurship Monitor	TFP	Total Factor Productivity
GEOSTAT	National Statistics Office of Georgia	TRACECA	Transport Corridor Europe - Caucasus - Asia
GIZ	German Society for International Cooperation	TTOs	Technology Transfer Officers
GEZI	Customs Clearance Zone	TSA	Targeted Social Assistance
GR	Georgian Railways	UNCTAD	United Nations Conference on Trade and Development
GVA	Gross Value Added	USAID	United States Agency for International Development
IADI	International Association of Deposit Insurers	VET	Vocation Education and Training
HHs	Households	VAT	Value Added Tax
IBRD	International Bank for Reconstruction and Development	WBG	World Bank Group
ICD	Inland Container Depot	WDI	World Development Indicators
ICT	Information and Communications Technologies	WITS	World Integrated Trade Solution

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Executive Summary

"Georgia: Seizing the Opportunity to Prosper" suggests a path towards sustainable and shared growth.

Georgia's story is associated with three stylized facts: high growth with persistent unemployment—currently at nearly 15 percent after 10 years of annual growth that averaged above 5.5 percent; a doing business rank of 8 out of 189 countries achieved without recovery to 1990 levels of per capita income—suggesting a relatively difficult transition experience in spite of noteworthy success with several governance and business environment reforms; and obstinate socio-economic vulnerabilities—reflected in Georgia's status as one of the poorest countries in the Europe and Central Asia (ECA) region of the World Bank¹ with a relatively weak performance on reducing poverty and inequality.

Georgia is well positioned to achieve its development objectives. Past history is not the ideal lens through which to view a country that experienced multiple crises—domestic, global, and conflict-related—most recently during three successive years starting 2007. Rather, given the country's strong history of trade liberalization, structural reform, and commitment to market-based growth, the new opportunities offered by the Association Agreement (AA) and Deep and Comprehensive Free Trade Area (DCFTA) with the European Union (EU), and a pronounced policy shift towards inclusion starting around 2010, the future looks bright.

The main challenge is persistent joblessness, which must be addressed to establish a sustainable basis for the pro-poor development model outlined in the Government's Socio-Economic Strategy 2020. Georgia has grappled with persistent and high unemployment—the main driver of poverty—since independence and needs to grow approximately 52,000 jobs net² over the next three years to meet even a modest target of 12 percent unemployment. Growth in the past decade was driven by capital accumulation with high dependence on public spending—including social transfers that helped reduce poverty and boost shared prosperity after 2010—and external borrowing. Productivity growth and foreign direct investment (FDI) was mainly in the non-tradables sectors, especially real estate and construction and net job growth was weak, even pre-crisis during the double digit growth years. Looking forward, sustaining high growth with poverty reduction will entail investment in human, institutional, and physical capital to ensure productivity growth in the tradables sectors, necessary for this small open economy to strengthen export competitiveness and leverage new market opportunities into higher employment and output, and lower poverty.

This report, which is anchored in the Government's Socio-economic Development Strategy 2020, explores the potential for improved export competitiveness to strengthen employment growth in Georgia and is intended to inform a policy agenda mainly focused on the demand side of the labor market. International evidence suggests that structural reforms need to gestate before labor market outcomes improve, and that far more targeted focus is needed to support productivity growth, especially in younger and more innovative firms

¹ To facilitate comparison of poverty across countries, the World Bank computes comparable and harmonized consumption aggregates using latest available household survey data, which differ from the national poverty estimates and are benchmarked against regional poverty lines of \$1.25, \$2.50 and \$5 per person per day. Cross-country comparisons show a high level of poverty in Georgia as compared to other countries.

² Assuming no increase in the labor force participation rate.

that tend to lead on net job creation. Job creation is best served through actions supporting the development of the labor market: both on the demand-side, i.e. the actual expansion of production and jobs through measures targeting firm productivity—and on the supply side, i.e. building the capacity of the workforce to absorb additional demands through improved labor productivity and mobility. This report attempts to inform the policy discussion in this context, mainly by focusing on the demand side of the labor market and on export competitiveness.

The challenge

While Georgia has improved its performance on poverty reduction and shared prosperity since 2010, more needs to be done to strengthen the income generation capacity of the bottom 40 percent of the population, which will call for a comprehensive policy agenda targeting job growth and job-readiness. By the World Bank's "shared prosperity" metric, or the relative growth in consumption of the poorest 40 percent of the population (the bottom 40 or b40), the marked improvement in recent years could be attributed largely to strengthened social safety nets. While this is not unusual in itself, what is unique about Georgia is that this is largely non-contributory social assistance. In fact, dependence on fiscal transfers is extraordinarily high relative to the rest of the ECA region, both among the b40 and the top 60 percent. Minorities and Internally Displaced Persons (IDPs) are at the core of the b40 and are especially reliant on state support. Sustainable poverty reduction will therefore depend on strengthening the income generation capacity of the b40. Supporting economic competitiveness—through actions targeting firm and labor productivity—and leveraging strengthened capacity to trade to overcome the limitations imposed by domestic market size will be necessary.

Georgia's high current account deficit reflects challenges that can be addressed through a shift towards new, export-oriented sources of growth. The structure, financing and sustainability of the current account correspond directly to current and future patterns of growth and economic competitiveness. High deficits in Georgia reflect consumption led growth and a high propensity for capital inflows—including FDI—to increase imports rather than generate exports, and have led to high borrowing needs and risk perceptions that inflate borrowing costs. While low savings have been a driver of the current account deficit, a sustained improvement in the current account balance would have to come from an improved trade balance for three main reasons. First, though its impact has been small, growing trade has had a significant and positive impact on Georgia's current account balance. Second, real exchange rate movements do have an impact on net exports but this is weakened by the high degree of dollarization of the financial system, the reliance of firms on external financing, and the limited development of the tradables sectors. Third, while savings have picked up in recent years, investment needs remain high; and adjustments to consumption could be especially painful for the poor.

Export survival is key

Georgia's export growth rates have been impressive, at well above 10 percent per year on average since 2000; however market survival—critical for deepening trading relationships and supporting sustained improvements in competitiveness—remains a challenge. During 2006–2012 Georgia's exports tripled in nominal value and doubled in volume; at the same time, 75 percent of new export products and 70 percent of all exports products failed to survive past their first year. The average length of an active export product from Georgia is relatively short, though survival for longer than a year significantly increases the probability of sustaining exports.

Since an important difference between successful and less successful exporters is the former's ability to maintain export relationships for longer periods, which allows deeper trade, export growth, and job creation, a closer look at the main drivers of export survival in Georgia is important. Greater capital intensity of production, associated with higher productivity as well, increases the probability of export survival. Firms with foreign participation are more likely to survive, possibly due better management, closer-to-the-frontier technologies, greater knowledge of international markets, and more capacity for and access to finance and market research. Network effects appear to be important as well. The more firms there are that export one product, or export to one destination, the more information there is about the specificities of the particular market. That information may spillover to new entrants or to diversifying firms. Increased information may also spill over to the financial sector, which may find it less risky to finance innovative activities of firms trying to diversify.

Georgian firms rely mainly on growing exports of the same product or exports to the same destination. Sustainable export growth is typically associated with an expansion into new products and new markets (the extensive margin) and the extension of existing export relationships (the intensive margin). While Georgian exporters are no exception in terms of being larger and more productive than domestic oriented firms and grow faster than non-exporters in terms of employment and output, export growth in Georgia has been largely due to exporting more of the same products to the same destinations. Though there is noteworthy experimentation with new products, it remains largely small scale; new products made up 50 percent of the total number of exported products in 2012, but accounted for only 16 percent of total exports in terms of value. About 75 percent of the new products introduced were by new firms. With high costs of learning about foreign demand conditions, tastes, and product specification requirements, many firms engage directly in small international transactions without having a thorough understanding of the market. The fact that firms with higher initial exports survive longer in export markets seems to support this interpretation. Firms that start exporting at a greater scale are more likely to have undertaken market research.

Increased trade and improved skills for more and better jobs

Georgia's export growth has mainly been in the primary sectors, reflecting the structure of the labor market and the relative lack of improvement in export sophistication. Export growth was driven primarily by chemicals, base metals, foodstuffs and vegetable products. This reflects both the nature of the labor market in Georgia and the relative lack of progression in terms of the skills content of exports, a measure of export sophistication that reflects the labor profile of the export basket. While Georgia's labor force has a much larger share with secondary level education now than a decade earlier, labor outcomes are still dominated by the low wage, low skill primary sector, which absorbs 57 percent of the workforce. There has been limited improvement in skills and value added export sophistication, and it is largely concentrated in goods destined for non-EU non-Russia Europe and Central Asia (ECA*)³ rather than the EU27, where quality requirements may make it more difficult to gain entry for higher value added goods. The skills profile of Georgia's exports has shown less dynamism than that of regional performers such as Poland or Estonia, which have progressed to higher value

3 Non-EU non-Russia ECA countries or ECA* include Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Belarus, Georgia, Croatia, Kazakhstan, Kyrgyzstan, Moldova, Macedonia, Montenegro, Serbia, Montenegro, Tajikistan, Turkmenistan, Turkey, Ukraine, and Uzbekistan. The EU27 includes Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

added manufactured exports. In fact, since 2000, the median wage, value-added and skill content of Georgian exports has changed very little.

If Georgia is to benefit fully from trade in terms of improved labor market outcomes, policy actions to facilitate the reallocation of resources to higher productivity and value added sectors will be necessary. Attracting FDI and capital investment in the tradables sectors could help Georgia expand its product offerings up the value chain, which could spur dynamism in the export sector, with positive knock-on effects for employment and wages. Policies that reduce labor mobility costs would reduce distortions affecting labor supply decisions and increase labor market flexibility, enabling workers to adjust more quickly to changing market signals. An important pre-requisite for benefiting from improved economic relations with the EU and leveraging the free trade agreement with Turkey and other countries is that resources move quickly and at relatively low cost to more productive and export oriented sectors. The fact that mobility costs are especially high for entry into the manufacturing sector suggests that there could be a transition period over which policies targeting manufacturing job growth would have a smaller-than-anticipated effect in the absence of concerted policy attention.

Georgia can draw on a rich policy experience to tackle the issue of skills mismatches, consistently identified as a driver of high unemployment and a constraint on labor mobility. The availability of skilled labor in Georgia has been identified as a “binding” constraint, especially by modern and international firms in Georgia. Simulations suggest that were the supply of jobs to increase sufficiently to absorb the unemployed, skills mismatches would still be consistent with 15 percent unemployment. The enrollment rate in tertiary education has declined in Georgia in the last few years and is now lower than in most ECA or EU countries. There remains considerable scope for improvement in vocational and technical education (VET) as well. The new education strategy (2013–2020) pledges to put more emphasis on quality of education, transferability of qualifications, elimination of “dead-ends” and counseling to help students find jobs. Strengthening the general education requirement for the VET track will also be critical since this determines students’ ability to keep adapting to ever evolving skills-related needs of firms. Both life-long learning and on-the-job training also need to be improved, especially in the context of Georgia’s aging demographic profile and high skills obsolescence in more modern sectors. In 2013, only 11 percent of the surveyed firms in the BEEPS reported offering formal training.

A common characteristic of countries that have had successful skills development strategies is a long term vision for education and innovation. Germany, India, China, Korea, and Singapore provide pragmatic examples of how firms were incentivized to invest in training more people than they could hire. In the Netherlands, for instance, firms can claim up to 140 percent of their training expenditures as tax deductions. In 2006, the North Rhine-Westphalia state of Germany introduced training vouchers that cover up to 50 percent of the fees. Since innovative firms account for a large share of the jobs being created, there are high returns from fostering entrepreneurship and strengthened R&D. This is especially true in Georgia, where innovators outperform non-innovators to a greater extent than in the rest of ECA and along multiple dimensions and where development of new sectors with potential for export competitiveness will be as critical as supporting competitiveness of existing sectors for increased job opportunities. Linking academic research to the needs of the productive sector, as in Chile, Singapore, Spain and Brazil, or focusing on encouraging entrepreneurship from an early age as in Sweden are potential strategies to draw on. Ireland developed a focused action plan to support the development of a work force that could feed a young, growing, innovative private sector. Particular emphasis was placed on ensuring that basic skills, such as literacy and numeracy, are imparted to everyone.

Reducing the costs of trade

An important driver of trade competitiveness is the cost of logistics; in Georgia, the pending agenda is largely in transit given the challenge of realizing the potential of the Caucasus Transit Corridor (CTC). Located at the crossroads of Europe and Central Asia, Georgia is a transit country with the potential to connect several important economic regions in Asia and Europe. The Caucasus Transit Corridor (CTC) is a key transit route between Western Europe and Central Asia for the transportation of oil and gas, as well as dry cargo. CTC is part of the international and regional corridor TRACECA; an alternative to the north corridor running through the Russian Federation and Belarus, and the southern corridor running through Turkey and Iran, since the latter cannot handle cargo originated in Europe and United States. Potential transit flows are large when compared to current volumes handled on the CTC, especially in non-liquid bulk products. The overall value proposition of the CTC relative to other options—including the Iranian ports for non-US and EU originated cargo and the Baltic ports for the rest—has high potential, though better integrated systems along the border with Azerbaijan, where costs are reported as unpredictable, would be necessary. For cargo destined or originated in Central Asia, only 22 percent of the potential dry bulk transit cargo and 10 percent of the potential containerized transit is currently transported through Georgia. However corridor level planning and facilitation would be critical to realize this potential.

Despite Georgia's proactive investment strategy on infrastructure in recent years, there remains a pending agenda to strengthen logistics. Georgia's transport policy is centered on maximizing private sector involvement in management of and investment in ports and airports, and more strategic prioritization of government sector investments, including the East-West Highway transit corridor and rural roads. Transport services have been liberalized in the railway sector as well. Going forward it will be necessary to take a "big picture" view of the sector and ensure that public investment fully accounts for synergies between different modes of transportation, and that the focus moves away from the preparation and implementation of large single-mode infrastructure projects. The development of a national transport strategy is ongoing and will help address the planning and coordination issues.

The supply chain management industry is still underdeveloped and in need of capacity development. Third Party Logistics Providers (3PLs) that integrate operations with warehousing and transport are present in the country, but do not offer a full range of services. A reliance on typical transit operations is evident for the most part. Nonetheless, Georgia's participation in controlling transit flows is rather limited (only 7 out of 100 containers entering and leaving Georgia are booked in the country). Companies manage logistics assets in house for the most part, and lack awareness of outsourcing and joint ventures opportunities. The most sophisticated segment of the market, comprised of a few firms, shows a high degree of vertical integration. There is a need to develop capacities in the sector through education, coordination, outreach and improved regulatory frameworks for the forwarding sector.

No region left behind

Over the last decade, Georgia has undergone rapid economic growth, yet Georgian regions have failed to benefit in an equitable manner. Solid growth rates and evolving trade patterns, and the development of large trade deficits have not been accompanied by regional convergence in terms of either income or productivity. A

case in point is Tbilisi, the capital, which contains approximately one third of the national population and accounts for half of the country's GDP. The city-region's per capita output levels are almost twice the national average and more than three times that of the most lagging regions.

The ongoing decentralization process in Georgia also has implications for firm competitiveness and for regional economic development in general. The decentralization process does offer an opportunity to strengthen public participation, voice, and promote inclusive governance. Where successfully implemented, this process can support the specific needs of lagging regions and groups in Georgia, and improve the prospects for firms to compete and regions to develop. However, evidence tends to be mixed on whether impacts of decentralization are positive or negative, and suggests that the complexities of design, planning and sequencing are major stumbling blocks that require close consideration. If Georgia is to continue to harness the development potentials of global trade, it will be important to ensure a balanced matching of power, responsibility and resources to provide the regions, along with institutional capacity building. Only when regional government units are able to diagnose and evaluate bottlenecks in the regional environment, including shortcomings in local socio-economic conditions, identifying on the way appropriate actors and stakeholders to instigate reforms and balance the complex needs of the local territory, can real, sustainable development really begin to take place.

The globalization process offers unprecedented opportunities for firms to grow and regions to prosper; but heightens the risk that some firms and regions will be left lagging behind unless local public services are strengthened, especially with a view to supporting small firms. Two questions are important in this context; the impact of regional characteristics vis-à-vis firm competitiveness, and how decentralization process will impact existing disparities. While firm specific characteristics matter more, location or place-specific effects are relevant productivity drivers. Local public expenditures, transport infrastructure, and human capital endowments are particularly important for the competitiveness of Georgian firms. As global trade continues to intensify—especially in view of the DCFTA with the EU—building capacities in less favored areas is imperative to ensure that existing regional disparities do not widen further. While the nature of Georgia's firms, with a large proportion of exports and value added being derived from low-productivity sectors, affects the strength of the findings, the impact of improved public services in the regions is only likely to strengthen as firms evolve to levels that enable better exploitation of the positive externalities associated with knowledge spillovers and trade opportunities. Support for small firms should be a particular priority, given strong potential for job creation and rapid productivity growth.

Table ES.1. Suggested Policy Actions

Policy	Required Actions
Strengthen export competitiveness to facilitate expansion of jobs and output	<i>Strengthen export promotion activities to reduce entry costs associated with informational asymmetries</i> and contribute to improved export survival. Can be supported by strengthening the provision of information about foreign consumers' preferences, help with the identification of potential buyers, and assistance in tackling the regulatory complexities associated with serving foreign markets. Reforms would benefit from a transparent system of monitoring and evaluation, based on improved firm level and transactions data, to ensure that scarce public funds are put to their best use.
Ensure all firms have equal opportunities to build productive and innovative capacity, diversify exports, and move up the value chain	<i>Encourage foreign direct investment and facilitate interaction between foreign and domestic firms.</i> Inflows of foreign investment have been targeting services sectors such as construction and banking, and real estate. Investment promotion activities could be focused on reorienting potential investors to tradable sectors and more innovative activities. <i>Further develop the national quality infrastructure</i> (accreditation, metrology, standardization and conformity assessment) according to DCFTA requirements to enable firms to adhere to international standards and strengthen institutional and technical capacity. <i>Newer firms innovate but need support to scale up, survive and grow jobs.</i> Strengthened access to finance, for example through innovation grants, will boost R&D and help firms adapt and adopt new products and technologies. Facilitating university—enterprise linkages would build a stronger national system of innovation to support the dissemination of basic knowledge from academia to the productive sectors of the economy, and from firms to universities.
Support labor mobility through skills development	<i>Strong emphasis on general education</i> is critical in a world in which technologies come and go at a fast pace since these allow workers to better adapt. <i>VET quality and appeal</i> strengthened, ensure that tracking into vocational does not happen too early, develop general education component of VET to improve the employability of students that are streamed relatively early in their lives, before they get the basic skills. <i>Firm incentives to invest in training</i> , including of older workers; stronger engagement with private sector on VET and life-long learning.
Facilitate realization of transit potential for both direct export of transport services and reduction of overall trade costs	<i>Strengthen cooperation and institutional framework with Azerbaijan:</i> Operationalize block train from Poti to Baku and beyond; including a transparent single negotiated rail tariff (ADDY) and accessorial. Deepen cooperation with CASPAR to address charges transparency and schedule reliability for ferry services. Operationalize bi-national Corridor Working Groups. <i>Promote pilots of joint-ventures between shippers, forwarders and (alternative) companies providing shipping services in the Caspian</i> <i>Ensure sustainability of financing of infrastructure investments in the transport sector</i>

CHAPTER 1: GROWTH AND SHARED PROSPERITY IN GEORGIA: WHY TRADE?

Georgia's socio-economic indicators reflect that it was hit harder by the transition to independence than any other country in the region and that its reform history has been short and interrupted. Following independence, Georgia's per capita income plummeted to 28 percent of its 1990 level by 2005, before recovering to about 78 percent in 2013. Growth has averaged over 5.5 percent since 2004, mainly because of the structural reforms of 2004–08. However weak initial conditions and the “interruption” provided by a triumvirate of shocks over three years—namely protests in 2006 and 2007, the closing of the Russian market in 2007 and the conflict with Russia, and the global crisis in 2008—manifested in sluggish net job creation, continued over-reliance on “aggregate demand” to generate growth, and challenging vulnerabilities in terms of poverty and inequality. Georgia remains one of the poorest countries in the Europe and Central Asia (ECA) region⁴. At a Gini of 0.39, inequality is also relatively high by ECA standards.

Increases in total factor productivity (TFP) and capital accumulation, mainly in the non-tradables sectors, have been the main growth drivers over the past decade. TFP growth has been the largest determinant of overall gross domestic product (GDP) growth in Georgia, and appears to have been largely concentrated in non-tradables—including services, construction, and manufacturing—though some of these investments, particularly in infrastructure, have no doubt contributed to the economy’s productive capacity. After the crisis, brisk public spending supported a broad-based recovery, and the decline in agriculture started to slow. While jobs were created, significant shedding of the work force in the public sector largely offset private sector employment growth, and labor accumulation played a relatively small role.

Strengthening export competitiveness has been a challenge, which reflects both the underlying structure of the economy and the current sources of growth, and will call for a comprehensive policy effort. Faster growth in the non-tradables relative to the tradables sectors reflects the pending challenge of strengthening Georgia’s export competitiveness and underpins the large and persistent current account deficit. Higher productivity growth in non-tradables has contributed to real effective exchange rate (REER) appreciation, with adverse implications for competitiveness. These trends highlight the need for faster productivity growth and resource accumulation—of both labor and capital—in the tradables sectors, to support economic competitiveness and allow trade policy and closer ties with the European Union (EU) to translate into higher incomes, more jobs and improved development outcomes for the people of Georgia.

⁴ To facilitate comparison of poverty across countries, the World Bank computes comparable and harmonized consumption aggregates using latest available household survey data, which differ from the national poverty estimates and are benchmarked against regional poverty lines of \$1.25, \$2.50 and \$5 per person per day. Cross-country comparisons show a high level of poverty in Georgia as compared to other countries.

The World Bank Group has indicated as its twin goals the elimination of extreme poverty and boosting shared prosperity to highlight that both growth and inclusion are essential for development. Benchmarking absolute progress on poverty reduction and relative improvement in inclusion of the population at the lower end of the distribution in the growth process allows zooming in on the income generation capacity of the poor and the policy channels to strengthen this capacity. The WBG's measure of shared prosperity is either the growth in consumption or in income of the bottom 40 percent (b40) of the population. This measure is relevant for comparisons across all income levels.

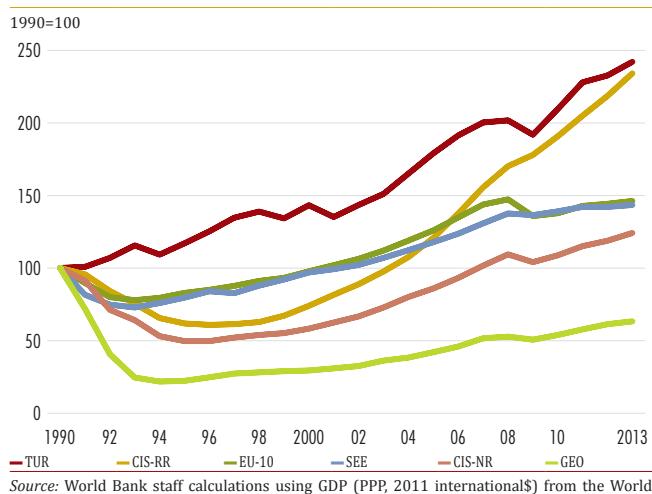
Georgia's track record on these key development goals has improved since 2010, but accelerating and sustaining progress remains a challenge. Performance on both poverty reduction and boosting shared prosperity has improved since 2010, following the fiscal stimulus that drove post-crisis recovery and the increase in pension and social assistance benefit levels and coverage. However net job creation, the basis of sustainable growth and inclusion, remains sluggish. Improving labor market outcomes remains a key challenge.

The empirical evidence points towards improved trade prospects—the main focus of this report—through strengthened competitiveness as being a potential avenue not only to job creation and growth but also to greater shared prosperity. As demonstrated later in the report, the productivity growth associated with an enhanced ability to export is critical to job growth—the main channel to boosting shared prosperity and reducing poverty—in Georgia as well as to real wage increases. International experience also suggests the conditions under which trade is beneficial for poverty reduction and growth. This report therefore focuses on trade and trade facilitation and on the key elements necessary to support strengthened competitiveness and job growth.

A. Growth Pattern

An impressive track record of growth since 2004 has still left the country worse-off than at independence in 1990. As noted in World Bank (2013)⁵, growth in Georgia over the last twenty years has been characterized by four phases: collapse, stabilization, acceleration, and finally, crisis and rebound. Following the breakup of the former Soviet Union, Georgia experienced one of the sharpest contractions in output among transition economies. By 1994, GDP collapsed to a mere 27 percent of its 1990 level (Figure 1.1), as widespread economic disorder and civil conflict took hold. From 1996, a brief period of macroeconomic stability and intermittent structural reforms enabled the economy to rebound and stabilize from highly depressed levels. Growth

Figure 1.1. Real GDP Index: Georgia and ECA Comparators



Source: World Bank staff calculations using GDP (PPP, 2011 international\$) from the World Bank's World Development Indicators.

⁵ Georgia Rising (2013), World Bank, Washington DC.,

averaged 5.2 percent during 1999–2003, and then, following the Rose Revolution at end-2003 and far-reaching and broad-based reforms, accelerated to an average rate of 9.3 percent during 2004–07. This acceleration was halted by the twin shocks of the August 2008 conflict (preceded in 2007 by the closing of the Russian market) and the global financial crisis. The economy rebounded in 2010–13, with growth averaging just over 5.5 percent. As of 2013, Georgia's GDP was at 80.5 percent of 1990 levels (Figure 1.1).

The structure of the economy shifted towards services over the past decade, led by public administration, real estate, and financial services (Table 1.1). In terms of sectoral contributions to growth, between 2004 and mid-2008, the main drivers were services, construction, and manufacturing, financed with substantial inflows of foreign direct investments of about 16 percent of GDP in 2007 (World Bank 2013a and b). The global financial crisis and August 2008 conflict led to a sharp fall in foreign direct investments, exports, and remittances fell. In 2009, the economy contracted by 3.8 percent. The government introduced a fiscal stimulus, which supported recovery starting 2010, underpinned by robust public spending. The recovery was more broad-based, with the decline in agriculture also starting to gradually slow and even reverse. Services, especially tourism and transport, and manufacturing were the main contributors to growth over the past three years. In terms of the share of GDP, manufacturing has stagnated while services are now at over two-thirds of the economy. In particular, the contribution to GDP of the public sector, real estate and financial services has increased steadily during the past 10 years.

Table 1.1. Sectoral Composition of GDP and of Growth

In percent of GDP and contribution to growth

Sectors:	Share of GDP (%)					Contributions to Growth (%, Period Avg.)			
	1997	2003	2007	2010	2013	1998–03	2004–07	2008–10	2011–13
Agriculture	29.2	20.6	10.7	8.4	9.3	0.19	-0.33	-0.68	0.48
Manufacturing	10.7	9.3	9.6	9.2	10.6	0.31	1.46	0.33	1.47
Product Processing by HHs	5.4	4.6	3.2	3.0	2.8	0.06	0.48	-0.17	0.13
Mining and Energy	3.7	5.0	3.8	4.0	3.8	0.28	0.23	0.22	0.13
Construction	3.8	6.8	7.8	6.1	6.7	0.76	1.29	-0.25	0.25
Services	47.1	53.8	65.0	69.4	66.8	3.21	6.13	1.94	3.49
<i>Of which:</i>									
Trade, Hotel, & Restaurant	13.9	17.2	17.2	19.1	19.7	1.25	2.09	0.53	1.23
Transport and Communication	8.2	14.8	12.1	11.5	10.7	1.30	1.72	0.50	1.05
Financial Services	1.0	1.6	2.5	2.6	3.0	0.36	0.47	0.22	0.59
Real Estate and Rental	9.7	6.4	6.5	8.2	9.1	0.30	0.62	0.19	0.41
Public Administration	4.0	3.8	14.9	13.0	10.1	-0.02	0.16	0.13	0.09
Education, Health, and Social	6.7	7.8	8.5	11.5	11.0	0.11	0.77	0.53	0.19
Other Services	3.7	2.3	3.3	3.4	3.1	-0.09	0.30	-0.15	-0.07
Total GDP	100.0	100.0	100.0	100.0	100.0	4.82	9.27	1.88	5.41
<i>Aggregate Demand Components:</i>									
HH Consumption	101.5	71.6	70.3	74.3	70.5	-1.24	6.36	2.45	2.69
Government Consumption	10.2	9.8	21.9	21.1	16.7	0.41	4.68	0.06	-0.48
Gross Capital Formation	17.8	31.3	32.1	21.6	24.8	3.68	3.17	-3.00	2.56
Net Exports	-26.5	-14.6	-26.7	-17.8	-13.0	1.24	-5.10	2.62	0.62
Total GDP	100.0	100.0	100.0	100.0	100.0	4.82	9.27	1.88	5.41

Source: World Bank Staff Calculations.

Note: GDP at basic prices excluding net taxes

Consumption has accounted for the largest share of GDP on the demand-side. After peaking at 106 percent of GDP in 2009, consumption—private and public—has settled back to about 87 percent of GDP in 2013 (Table 1.1). The other side of this coin—low domestic savings—has contributed to capital imports, dollarization of the banking system, and a high current account deficit. For the economy to generate the supply response necessary for sustained job growth and improved living standards, a further re-orientation towards investment in tradables and improving export competitiveness is called for.

B. Sources of Growth

Productivity increases and capital accumulation, concentrated mainly in the non-tradables sectors, have been the main growth drivers, with labor contributing relatively little. Over 1999–2012, TFP and capital accumulation were the main sources of growth. While the contribution of labor has been smaller, reflecting fairly flat net job creation, it increased post-crisis following the fiscal stimulus and growth recovery. The concentration of productivity increases in the non-tradables sectors is clear from the pattern of TFP over time. High TFP growth during 2004–07 accounted for 6.3 percent out of an overall average growth of 9 percent. This period saw rapid growth in construction and services, with manufacturing retaining its share in GDP but not increasing it. The fall in TFP over 2008–09—the main source of the decline in GDP after the onset of the global crisis—accounted for 2.02 percent out of the overall contraction of GDP by 0.78 percent over 2008–09. This period saw a shrinking of the construction sector and a sharp fall in services growth. Post crisis growth recovery was also mainly accounted for by TFP growth, which contributed 3.9 percent out of overall GDP growth of 6.5 percent over 2010–12 (Figure 1.2).

The macroeconomic fundamentals reflect the underlying economic structure and current sources of growth and highlight the importance—and challenge—of strengthening export competitiveness. Low domestic savings relative to investment and high imports, especially of consumer goods, relative to exports, have led to persistent current account deficits, which have been financed—and sustained—by large capital inflows supported by high domestic interest rates. These inflows, coupled with weak capital market development and limited lari financing instruments, have led to high dollarization in the banking system. An appreciating real exchange rate, reflecting productivity growth and capital accumulation in the non-tradables sectors, has further constrained export competitiveness. While the persistent current account deficit suggests that the currency is over-valued, significant forex borrowing and lending would limit the positive impact of depreciation on export competitiveness while risking losses to firms that have currency exposure. Strengthening export competitiveness to contain and ultimately reverse the trade deficit will contain external imbalances, limit the need for a painful

Figure 1.2. Contributions of Capital, Labor and TFP During Sub-Periods

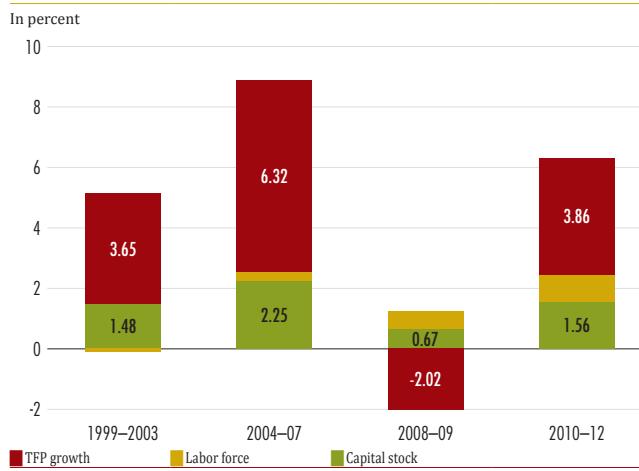
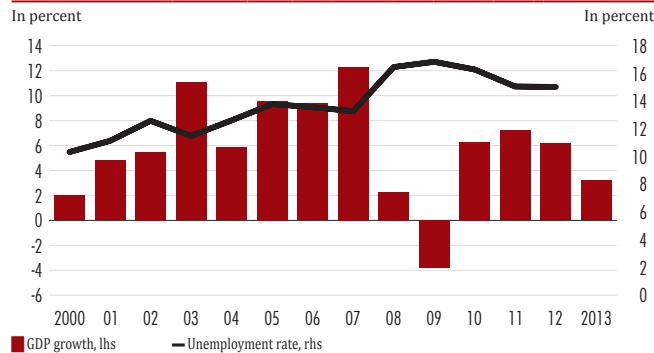


Figure 1.3. Macroeconomic Snapshot

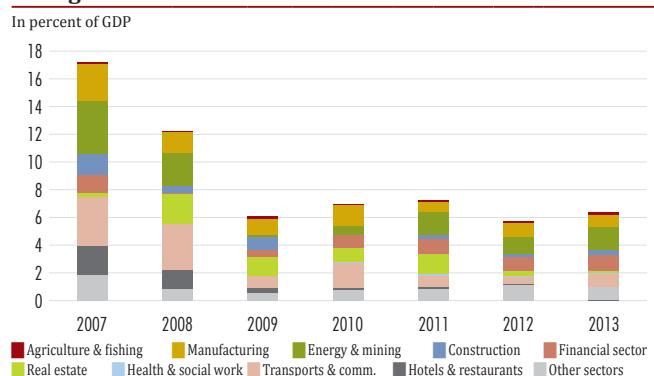
GDP Growth & Unemployment



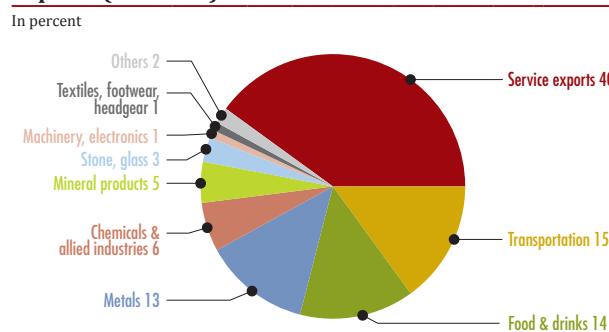
Real Effective Exchange Rate



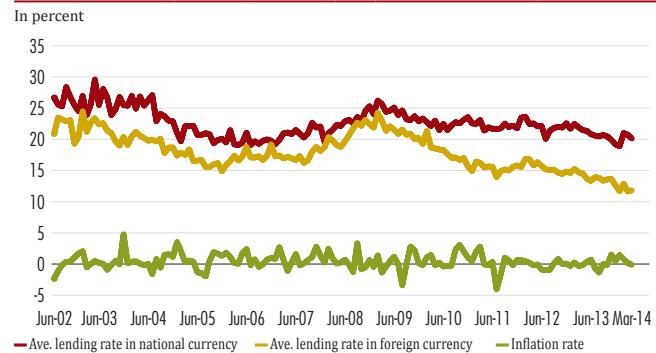
Foreign Direct Investment



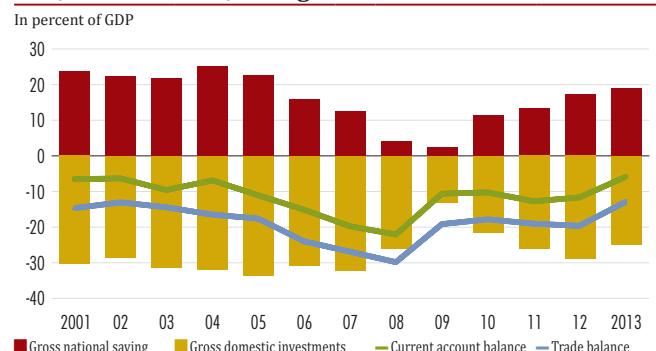
Exports (2010-13)



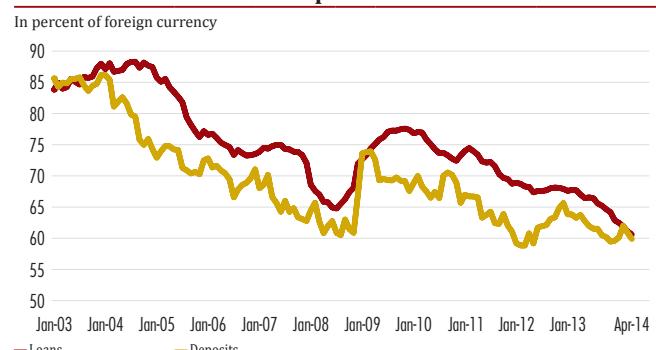
Inflation & Average Lending Rate



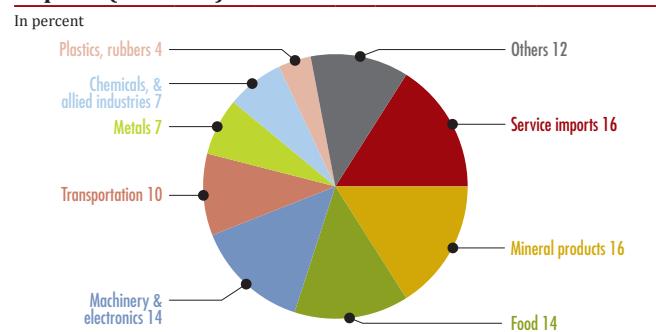
CAB, Trade Balance, Saving & Investment



Dollarization of Loans & Deposits



Imports (2010-13)



adjustment to consumption and/or investment in the event of a shock, and support the expansion in the tradables sectors necessary for net job creation.

Re-orienting investment towards the tradables sectors will be especially important. Capital in Georgia has mainly flowed to non-tradables and has been import rather than export-oriented. For Georgia to be able to strengthen export competitiveness—and take advantage of closer economic ties with the EU—the tradables sectors must expand and this will take higher investment than available only from domestic savings. In many countries, FDI has helped develop export capacity by supporting market integration, inter-industry linkages, updating skills and technological modernization. This has not yet happened in Georgia to the extent needed, but can potentially be a source of high job growth (World Bank 2013c).

Successful job creation in the ECA region has depended on there being a consistent track record of structural reforms, skills, and an enabling business environment to support firm productivity growth. The World Bank's flagship report on jobs⁶ asks two questions: how do countries create jobs and which policies help workers access these jobs? The main findings of this study suggest that successful job creators in ECA made an early start on structural reforms, supported the development of an enabling business environment for entrepreneurship by facilitating firm entry, productivity growth, survival and expansion (or firm exit by allowing fast and cheap failure), and had incentivized, mobile and prepared workforce.

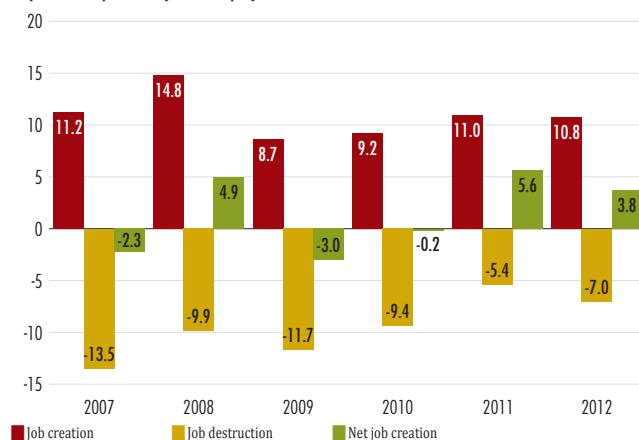
Looking forward, Georgia needs net job creation in the tradables sectors to be the basis of shared and sustainable growth. So far, while Georgia has created jobs, the pace has been insufficient given the normal process of job destruction in declining sectors (Figure 1.4). For a small open economy like Georgia, export growth, especially of higher value added but labor intensive manufactured goods, is an important potential means to achieving brisker net job creation. Supporting firm productivity is a pre-requisite for employment growth and will call for renewed commitment to and deepening of structural reforms. New, innovative and modern firms are the main source of job growth in the ECA region. The business environment must enable these firms to emerge, survive or exit, and grow. This also means supportive macroeconomic fundamentals, in particular policies to encourage domestic savings and local currency financing for young firms. Supporting education reform and skills development, strengthening incentives to work and supporting additional growth centers outside of Tbilisi will facilitate labor mobility as well as higher labor force participation. This resource mobilization to higher productivity sectors will complement and leverage the market access gained by Georgia through the Association Agreement and the DCFTA with the European Union.

⁶ Back to Work: Growing with Jobs in Europe and Central Asia (2013), World Bank, Washington DC.

Figure 1.4. Job Creation and Destruction

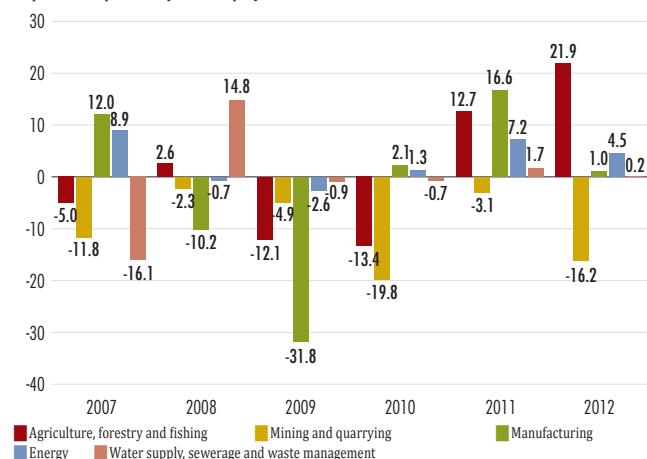
Job Creation and Destruction in Georgia

In percent of previous year's employment



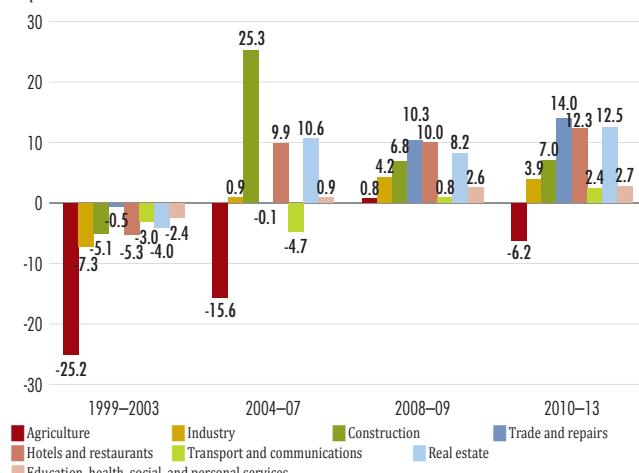
Net Job Creation by Sectors

In percent of previous year's employment



Annualized Employment Growth by Sectors

In percent

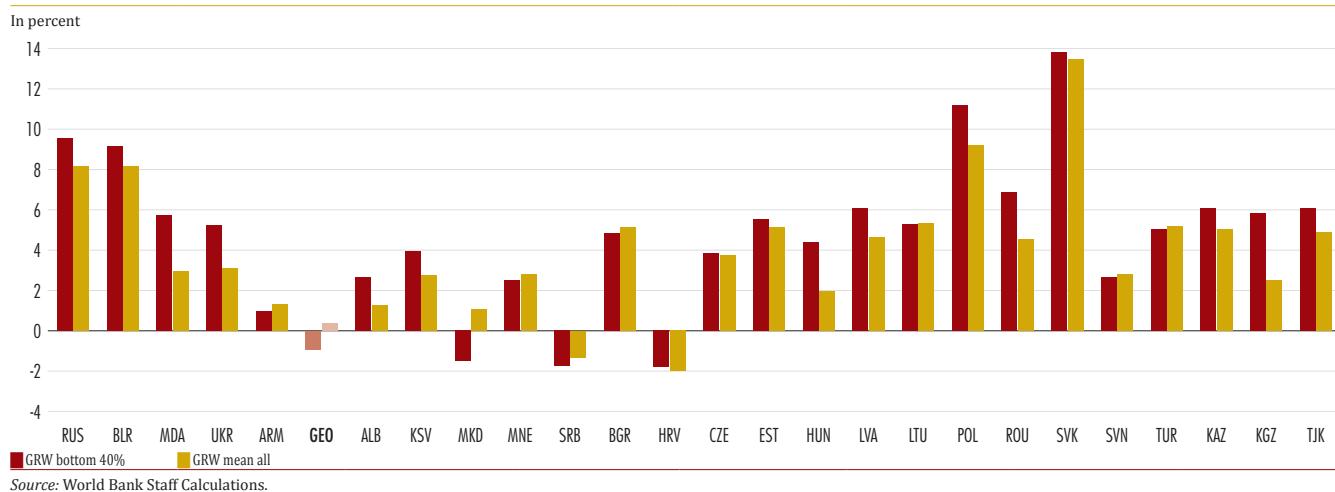


Source: World Bank Staff Calculations based on Geostat data.

Note: Data include firms in non-service sectors only.

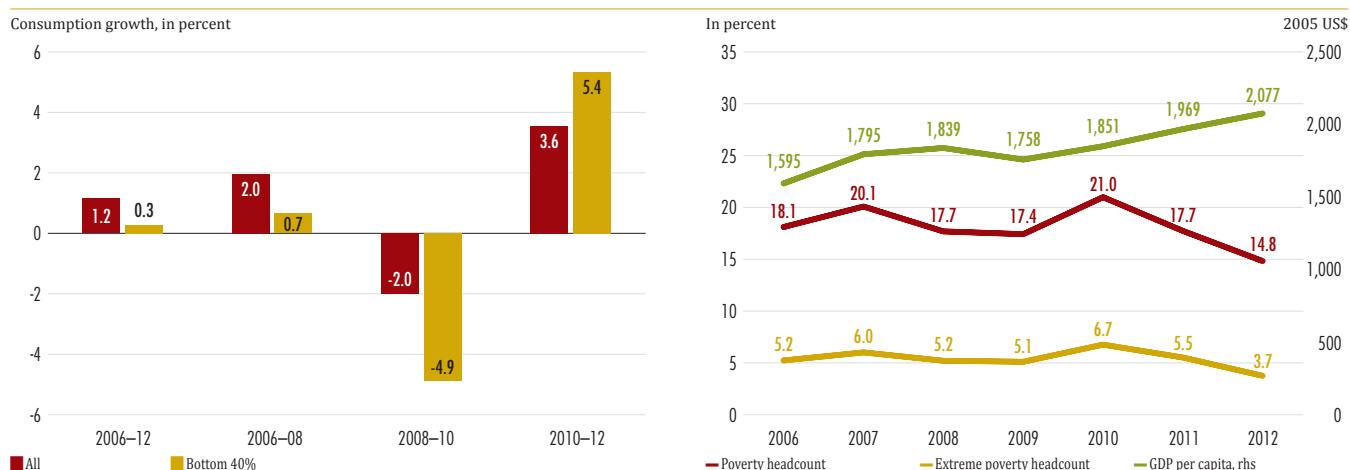
C. The Drivers of and Constraints on Shared Prosperity in Georgia

Georgia's performance on shared prosperity relative to the rest of the region has not been stellar. Georgia has fared relatively poorly in terms of growth of consumption of the b40 relative to the total population over 2006–12 and is among the weakest performers in the ECA region (Figure 1.5). However while the global shock of the 2008–09 crisis affected all countries, Georgia did experience additional and idiosyncratic shocks—protests in 2007 and 2008 conflict with Russia, which interrupted structural reforms and led to diversion of resources towards rehabilitation and repair, and also led to a need to transition to new export markets.

Figure 1.5. Regional Trends, 2006–12

Source: World Bank Staff Calculations.

However, unbundling the data reveals a marked improvement in Georgia's shared prosperity performance in recent years largely because of the fiscal stimulus and higher social transfers. A closer look at the growth rates for the bottom 40 and top 20 suggests significant variation over time, with the period immediately following the 2008 crisis largely driving Georgia's poor shared prosperity performance. During 2006–07, as the economy restructured and job destruction outweighed job creation, average household consumption expenditure barely recorded any growth for the population overall, but while the bottom 40 experienced a contraction, the top 20 grew by 2 percent (Figure 1.6). After 2007, there was a brief resumption in growth enjoyed by all (including the population in the b40) until the crisis hit in late 2008. In 2009, when the economy contracted, the average consumption expenditure contracted for all, although this contraction became visible only during 2009–10. The period between 2008 and 2009 saw the most unequal growth pattern where average household consumption expenditure declined only for the bottom 40, while the top 20 enjoyed 5 percent growth. When consumption contracted throughout the distribution over 2009–10, the (b40) were affected the most, with their average

Figure 1.6. Shared Prosperity and Poverty Over Time

Source: World Bank Staff calculations using Integrated Household Survey data, several years. GDP per capita from WDI.

Note: The national poverty line used here is an absolute poverty line to facilitate comparisons of poverty performance over time in Georgia. The 2012 values of this line were GEL 91.2 per adult equivalent per month and GEL 52.9 per adult equivalent per month (extreme or food poverty line). The differences between the national and ECA-harmonized poverty rates lies in the difference consumption aggregates used as well as the application of adult equivalence in the national measure as compared to per capita in the ECA-harmonized measure.

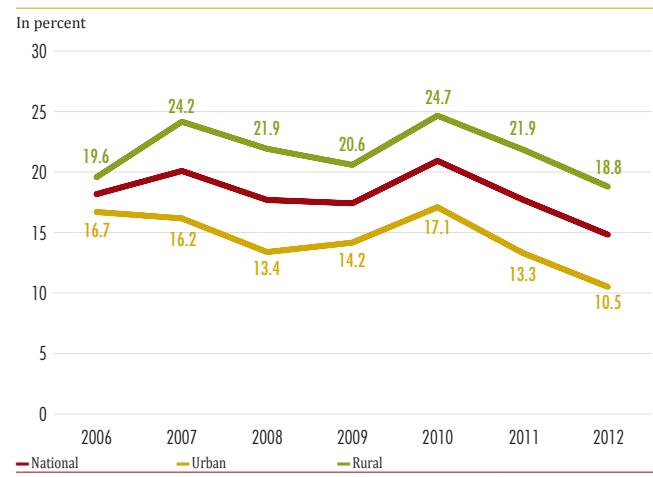
consumption expenditure contracting by 9 percent (compared to 5 percent for the top 20). The fiscal stimulus and broad-based growth recovery in the post crisis period appears to have especially benefited the bottom 40, who experienced 4 percent growth (compared to 0.6 percent for the top 20).

These trends are mirrored in the poverty data. Progress on reducing poverty and inequality has been slow, largely due to same factors that affected the poor shared prosperity performance: low net job-creation, limited urbanization, and high dependence on low productivity, subsistence agriculture. Poverty rates have stagnated between 18 and 21 percent between 2004 and 2011, peaking during the crisis. 2012 saw a noteworthy dip in poverty, reflecting higher social assistance levels and falling food and energy prices. The Gini coefficient has also remained fairly high by ECA standards, fluctuating around 39 over this period.

The structure or pattern of growth in Georgia has tended to favor urban areas more than rural areas, and there are persistent regional disparities. Poverty is more responsive to growth as well as to changes in inequality in urban than in rural Georgia.⁷ Agricultural growth has lagged (making almost no contribution to overall growth) as most growth has come from services and industry (which favor urban areas). In 2011, 22 percent of rural residents and 13 percent of urban residents were poor, with 8 percent of rural residents facing extreme poverty as compared to 3 percent of urban residents. As with overall poverty, the depth of poverty is greater in rural areas (poverty gap of 7.4 percent of the poverty line and squared poverty gap of 3.6) than in urban areas (3.7 percent of the poverty line).⁸ Not only is rural poverty higher but nearly two-thirds of the poor are residents of rural areas. This distribution of the poor differs from the overall population shares residing in rural and urban areas (about 50 percent each).

The probability of being poor, transient poor, or among the b40 is also associated strongly with labor market status and gender of the household head. The poor and bottom 40 are also more likely: (i) to live in larger households with a greater number of dependents; (ii) to live in households headed by someone with less than secondary education; (iii) to be unemployed or economically inactive; (iv) to have household heads who are less likely to be in paid work and more likely to be self-employed (which is largely how subsistence farmers are classified); and (v) to live in households headed by women. Among those households where the head is unemployed, poverty rate is 24 percent as compared to 14 percent among households whose head is employed. Transient poverty and economic mobility are also very strongly linked to employment status, in particular unemployment.

Figure 1.7. Poverty by Region



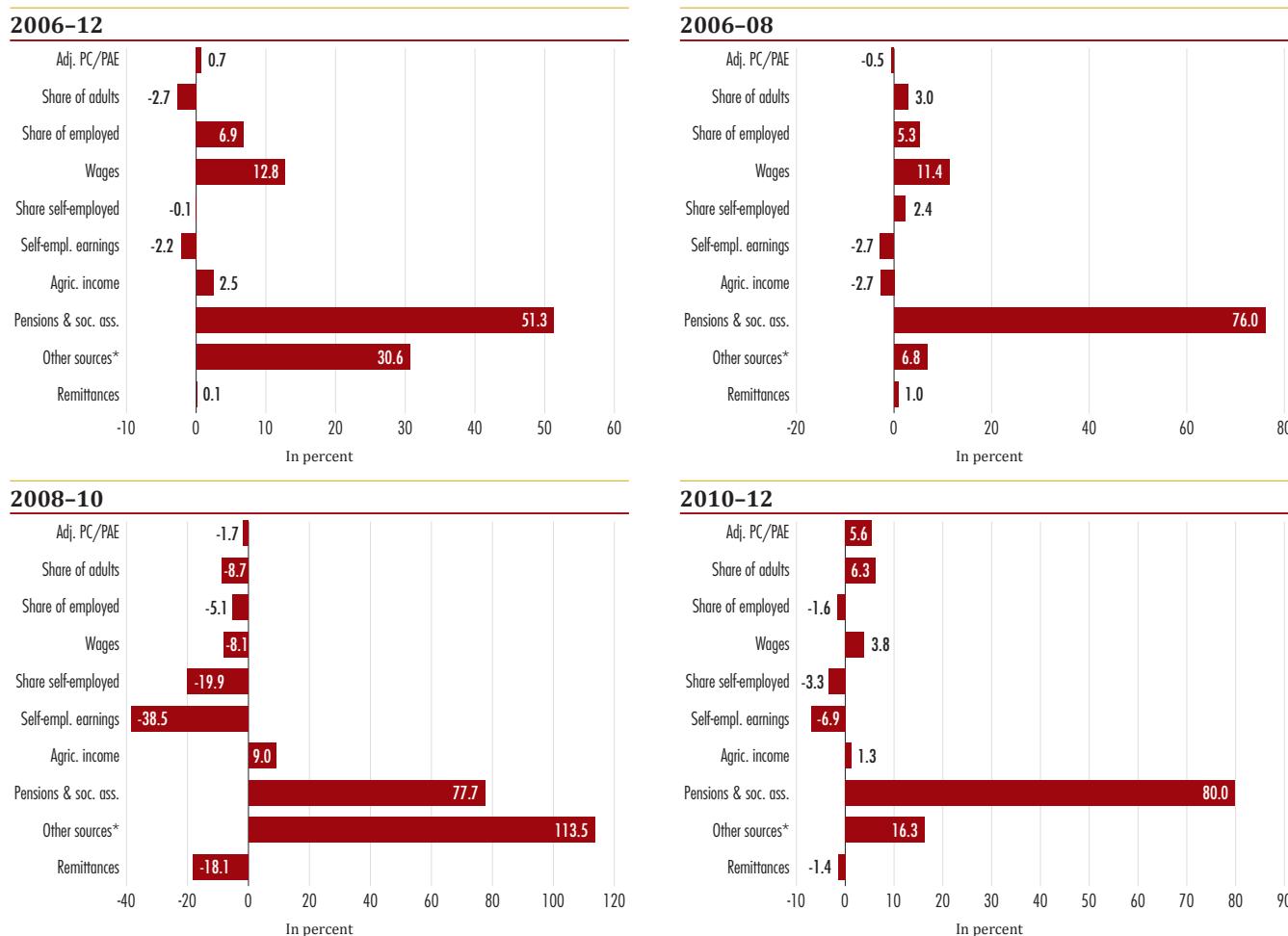
Source: World Bank Staff calculations using Integrated Household Survey data, several years.

⁷ Poverty-growth elasticity was -2.06 in urban areas and 1.52 in rural areas.

⁸ If transfers could be made efficiently then this pattern in the poverty gap suggests that the amount of transfers needed to bring rural poor above the poverty line is larger than that needed to bring urban poor above the poverty line.

The main source of changes in poverty observed in the last few years were accounted for mostly by social transfers (pensions and social assistance) and to a much lesser extent by labor market indicators (earnings, employment) (Figure 1.8). Using a poverty measure based on household income, simulations based on sources of income micro-decomposition show that most of the poverty reduction is explained by the old-age pension or targeted social assistance (TSA). Together social transfers account for 50 percent of the decline in the income-based poverty observed between 2006 and 2012, and 80 percent of the decline observed between 2010 and 2012. The second most important source of changes in the period 2006–12 is the category “other sources”, which includes income from sale or rental of property, loans, non-cash income and transfers from relatives.

Figure 1.8. Decomposing Poverty Using Income Sources; Share of Poverty Reduction Accounted for by Each Income Source



Source: World Bank Staff calculations using Integrated Household Survey data.

Note: (*) Other Sources: income from sale or rental of property, loans, non-cash income and local transfers from relatives.

More households move out of poverty than fall into poverty over time (Figure 1.9 and 1.10). Quarterly poverty changes as well as movements in/out of poverty between 2007 and 2012 indicate that there is “churning” under the relatively unchanging overall poverty rates. For example, poverty rose from 17 percent in the fourth quarter of 2009 to 23 percent in the second quarter of 2010. Generally, poverty rates are the highest during the second and third quarter of any given year. This pattern suggests seasonal employment patterns. About 32 percent of

those who were poor in 2009 were still poor two years later in 2011, while the rest of the 2009 poor moved out of poverty. Conversely, only 13 percent of those who were not poor in 2009 fell into poverty by 2011.

Figure 1.9. Quarterly Variation in Poverty Rates in Georgia

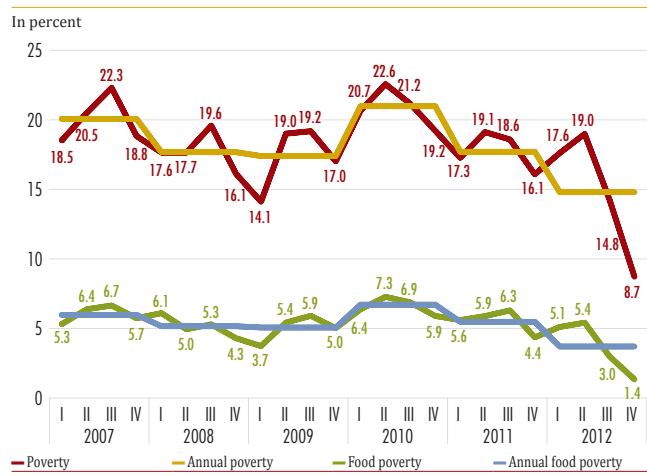
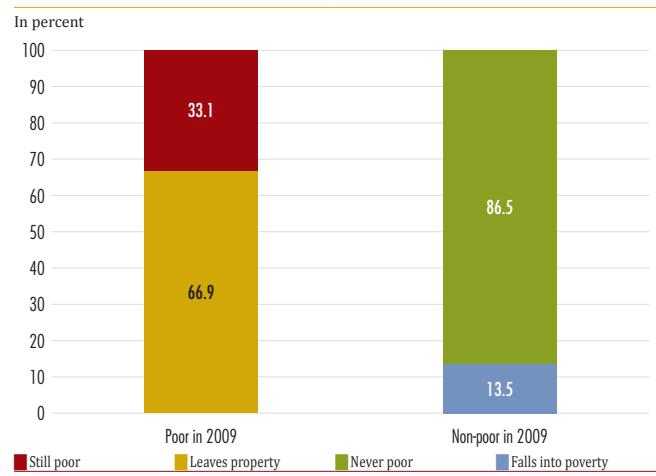


Figure 1.10. Quarterly Variation in Poverty Rates in Georgia



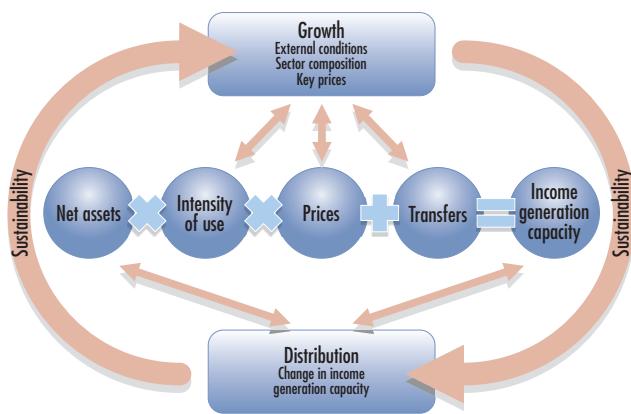
The Drivers of Shared Prosperity in Georgia

In the interest of sustainability, the emphasis has to shift from state support through transfers to strengthening the income generation capacity of the b40 in Georgia. The Government of Georgia's new Socio-economic Development Strategy 2020 emphasizes the need to support faster and more inclusive growth. To achieve this objective there is a need for sustainable sources of growth, backed by net job creation and strengthened economic opportunities to exit poverty and dependence on fiscal transfers. Creating these conditions, which would allow the b40—more likely to be inactive or unemployed- to use their relatively strong endowments productively, would boost progress towards shared prosperity. The b40 in Georgia, in fact, is rather well endowed in terms of assets (in particular human capital assets) but is not able to maximize their productive use through work. While Georgia is on track to achieving several of the Millennium Development Goals (MDGs) by 2015, important challenges remain, which limit the growth potential of the country and which could undermine the sustainability of the observed trends. There has been significant progress in recent years with declining infant and maternal mortality; full enrolment in primary education, with higher ratio of girls to boys in primary and secondary education; and increased proportion of the population with access to safe water sources. However, significant inequalities remain in terms of access to basic services and economic opportunities between the poor and marginalized population groups and the rest of the population (Georgia CPS 2014–17).

While growth is not a sufficient condition for boosting shared prosperity it is a necessary one. While focusing only on overall GDP growth is not enough to ensure income growth for the poor—as self-evident in the Georgian case—the relationship between growth and reducing poverty and inequality is a positive one overall—as is clear from the developing world's pre-crisis experience.

An assets based approach that marries macroeconomic drivers with microeconomic characteristics is therefore appropriate for understanding the policy levers available for boosting shared prosperity. The approach is outlined in detail in Bussolo and Lopez-Calva (2014) and is summarized in Figure 1.11. The idea is to take neither a top down nor bottoms up approach, but rather acknowledge that income growth is simultaneously driven by individual characteristics and macroeconomic drivers.

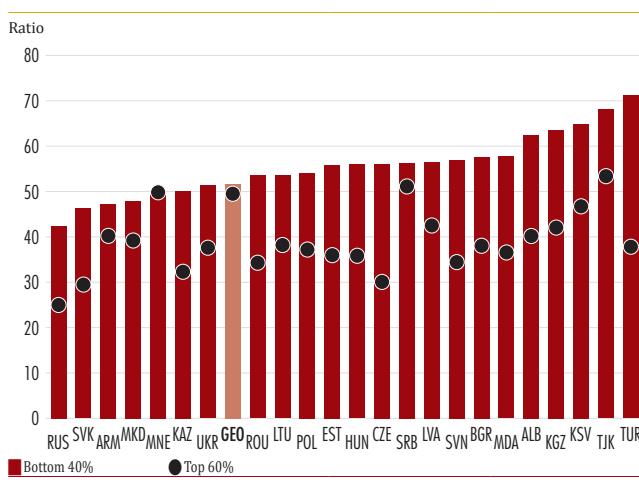
Figure 1.11. The ECA Shared Prosperity Framework



Source: Bussolo and Lopez-Calva (2014).

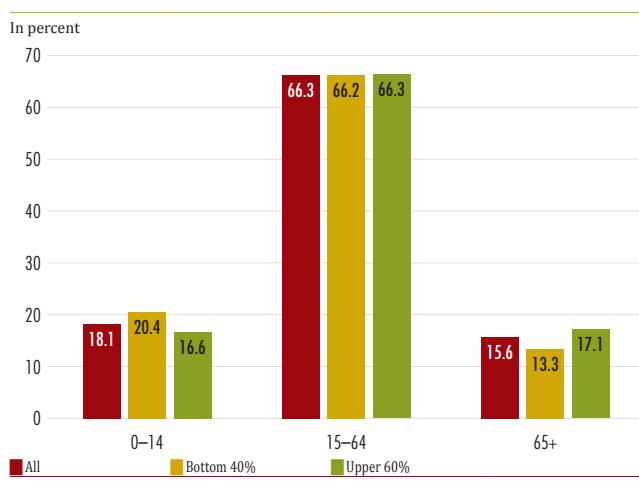
The central idea behind this approach is that Georgia's success at boosting shared prosperity will depend on strengthening the b40's endowment of assets and the long-run productive capacity of the poor. The framework captures the idea that the household's income depends on four main factors: (i) the stock of its assets, including human, physical, natural, social and financial capital; (ii) asset use, including reflection of skills or entrepreneurship in work, land use, and being economically active; (iii) asset returns, including wages, interest; and (iv) transfers, including public transfers and remittances. Within this context, growth is seen as the aggregate of the individual income generation capacity of all individuals and households in the economy.

Figure 1.12. Dependency Ratios in ECA



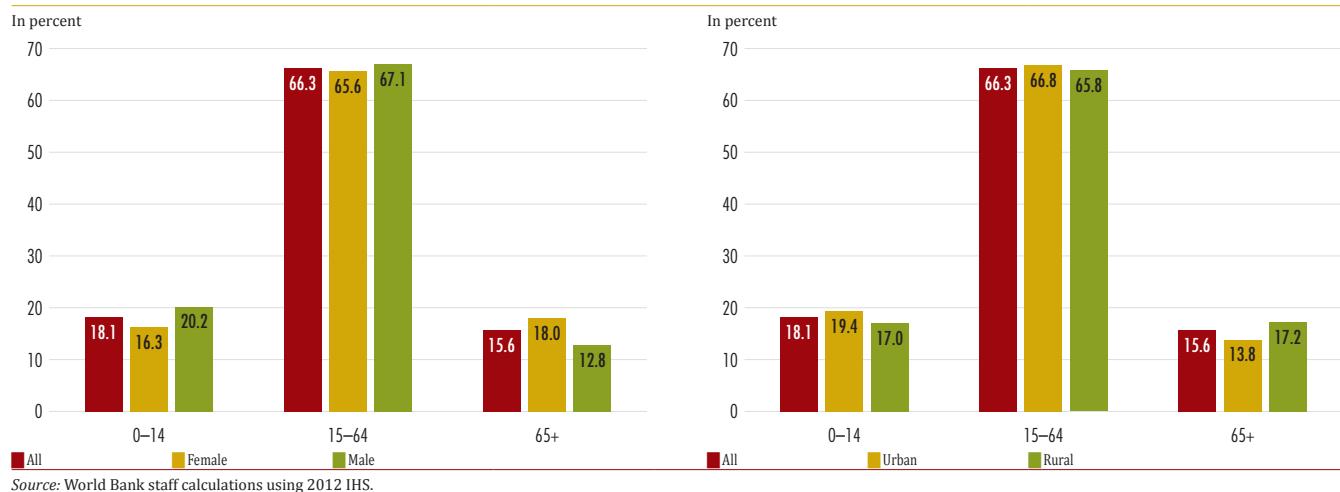
Source: Bussolo and Lopez-Calva (2014).

Figure 1.13. Share of Working Age Population in the b40



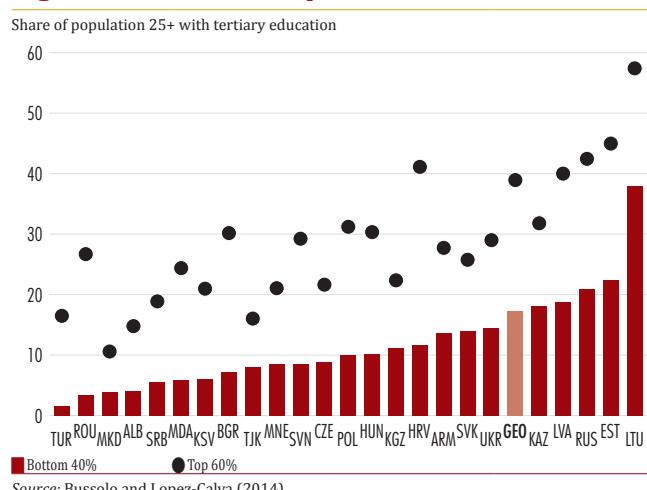
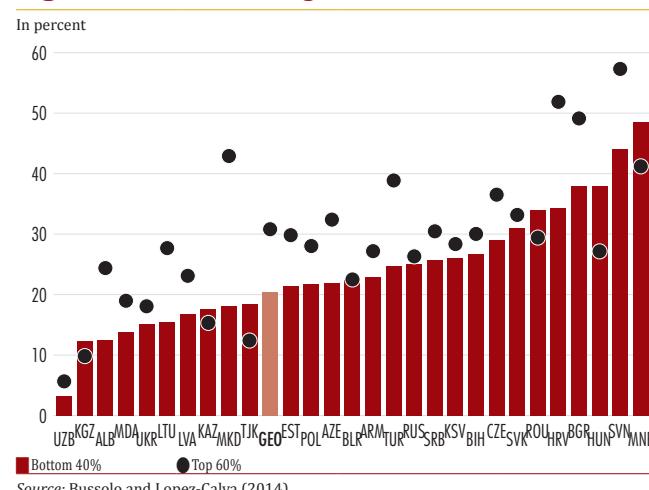
Source: World Bank staff calculations using 2012 IHS.

Demographic trends in Georgia point to a diminishing share of the working age population relative to dependents, including among the b40. Dependency ratios are slightly higher among the b40. Overall the share of the working age population is projected to decline dramatically, with implications both for social safety nets and for the ability of the poor to enhance productive capacity. The main concern is in fact old age dependency.

Figure 1.14. Age Decomposition by Gender and Location

Human capital endowment as measured by years of schooling varies across deciles but is relatively high for the b40 in Georgia, mainly because of a “cohort” effect. The share of the population in Georgia with only primary school enrollment is among the lowest in the region. This likely reflects a cohort effect, with older cohorts with more education having lost jobs in the SOE restructuring. But taking tertiary education as a measure of higher human capital endowments, generally resulting in higher likelihood to participate in the labor market and higher returns to work, the gap between the top 60 and bottom 40 appears larger. There is significant variation in Georgia’s tertiary educated 25+ populations between the top 60 and b40, though this gap is comparable with top shared prosperity performers such as Latvia, Poland, Bulgaria and Slovenia.

In terms of financial capital endowments, which can be illustrated by indicators on access to credit, there is also unevenness in distribution. Individual bank borrowing in Georgia suggests differences between the top 60 and the b40, with the latter at a disadvantage in financial capital accumulation. High interest rates and collateral requirements may be a deterrent to small borrowers.

Figure 1.15. Human Capital and the b40, 2010**Figure 1.16. Borrowing from Banks**

Despite a relatively high level of human capital endowments, the b40 is under-utilizing its capacity to generate income through work and displays low labor force participation rates. Labor force participation among the b40 is lower than that for the top 60 and also exhibits significant gender disparities. The gap between the b40 and the top 60 percent of the population in terms of LFPRs is about 2 percentage points while the gap between male and female LFPRs among the b40 is about 22 percentage points, slightly higher than the overall gender gap by this metric

Figure 1.17. Labor Force Participation Rates: b40 Vs. t60 by Gender

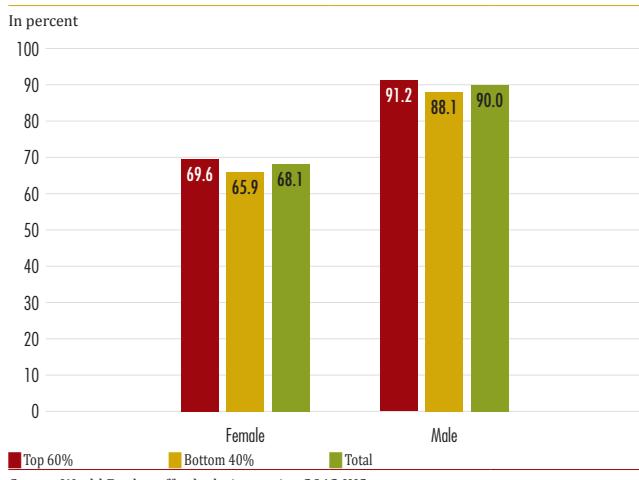
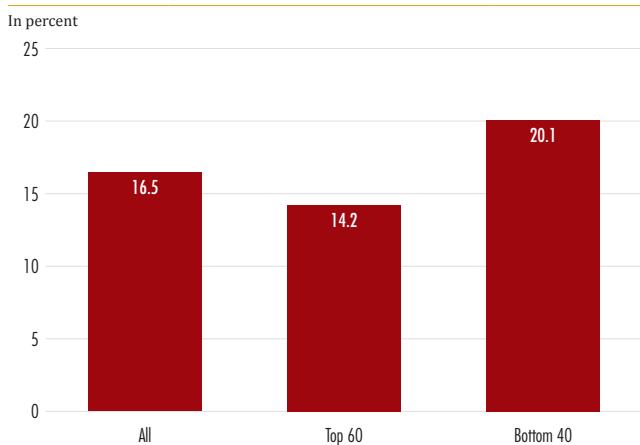


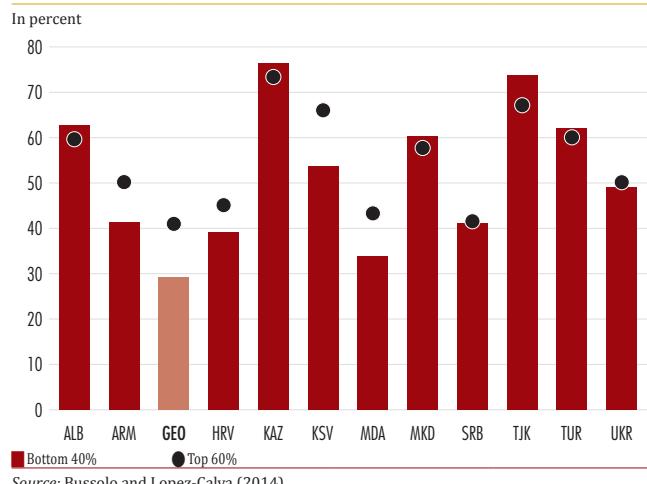
Figure 1.18. Unemployment in the B40 Relative to the Overall Population



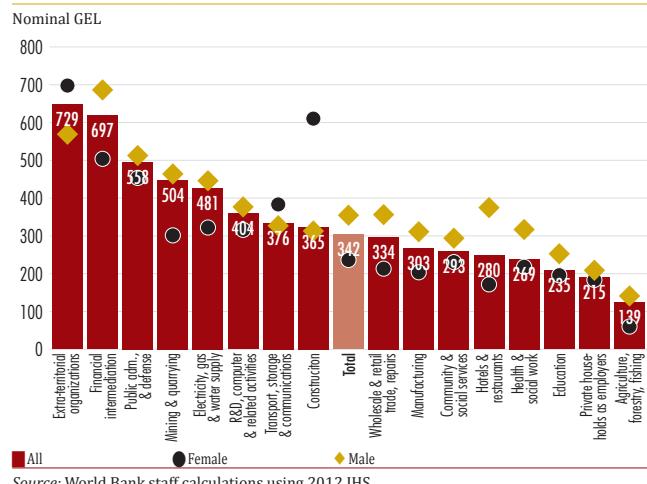
Unemployment rates are significantly higher among the bottom 40. As noted earlier the poor are more likely to be unemployed or to depend on seasonal employment. Overall official unemployment—which understates rural unemployment—is over 15 percent, while unemployment among the bottom 40 is over 20 percent.

Agriculture is largely of the subsistence type, which is reflected in high rural poverty rates. Nearly half the population depends on subsistence agriculture, which contributed about 9 percent of GDP on average between 2010 and 2013. Land use patterns suggest fragmentation of holding, though efforts are underway to establish a framework for consolidation and cooperation that may support productivity increases. Rapid growth in the wine sector is another positive development. Investment in agriculture has been low historically with some improvement in 2013 following a concerted policy effort by the government that is largely based on credit subsidies. This suggests that there is limited borrowing against agricultural assets for investment and that the agri-business environment needs far more focus.

Returns to assets—be they the relatively high human capital assets or physical assets such as land—are generally low, given great reliance on informal and self-employment, and on subsistent agriculture, which reflects in the low share of wages in total income. Figure 1.19 suggests that the share of wages in total income is relatively low in Georgia for both the b40 and the top 60 percent of the population. Overall wages are low, especially in the primary sectors that generate the most employment, in spite of recent wage growth in agriculture. These trends are consistent with the high dependence on subsistence agriculture among the poor and with the relatively high dependence on social assistance in the overall population. Formal employment in Georgia is dominated by the public sector.

Figure 1.19. Share of Wage Income

Source: Bussolo and Lopez-Calva (2014).

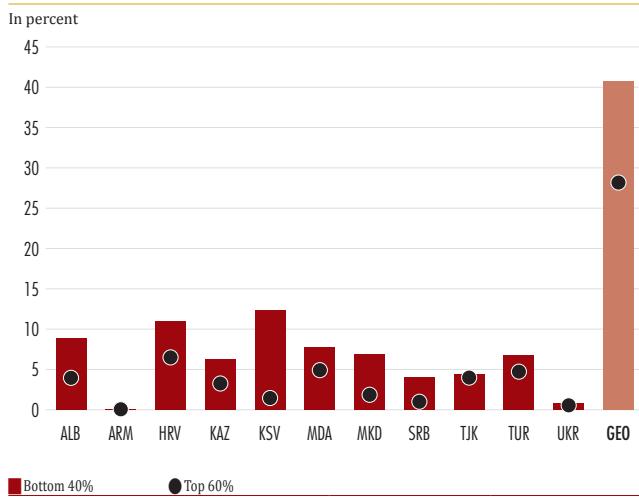
Figure 1.20. Monthly Earnings by Sector and Gender in Georgia

Source: World Bank staff calculations using 2012 IHS.

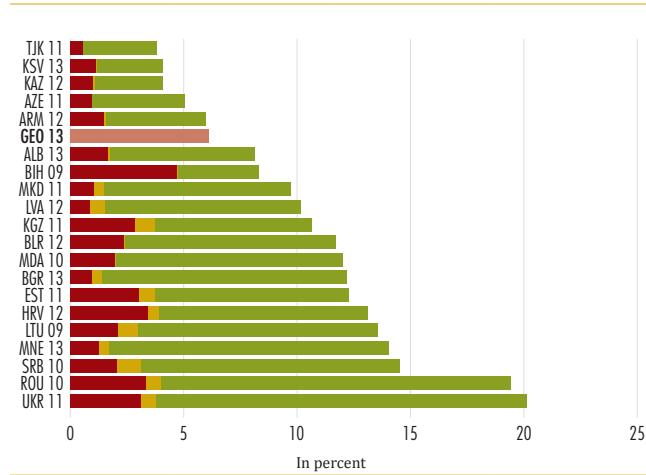
The relative importance of fiscal transfers in financing the consumption of the poor and boosting shared prosperity outcomes in Georgia is high relative to the rest of the region, though the picture is different if both social assistance and social insurance/labor benefits are included. The Georgian population overall—rather than just the b40—appears to depend significantly on non-contributory social assistance. Contributory social insurance on the other hand is non-existent in Georgia and relatively high in other countries. The bulk of social assistance in Georgia—80 percent—consists of pensions, which reach households across the whole distribution. Pensions therefore help explain the high share of consumption (nearly 30 percent) of the top 60 percent that is financed by transfers. Private remittances are also significant, at about 5 percent of GDP.

Our findings are mainly that the b40 in Georgia own fewer assets, make less use of them by engaging in productive activities, and that returns to their endowments are low resulting in dependence on social transfers and subsistence agriculture. These findings are consistent with those reported in Bussolo and Lopez-Calva (2014). High dependency ratios push down returns to assets, while reliance on small holding subsistence agriculture limits asset use. Low wages, skills gaps, and weak access to credit limit income growth opportunities. Reliance on social transfers is very high compared to the rest of the region, while the share of wages in income is relatively low, reflecting lower labor force participation rates among the bottom 40 and reliance on informal, seasonal and self-employment—particularly in the agricultural sector.

The policy levers available to strengthen the stake of the b40 in the Georgian economy are closely linked to the interventions needed to strengthen productivity, facilitate resource reallocation towards more competitive sectors, and thereby support export and job growth. This report contributes to our understanding of some of these policy channels (bolded) summarized in Table 1.2, which highlights the close links between the interventions needed to promote export competitiveness, job growth and shared prosperity, particularly in Georgia where poverty is largely driven by high unemployment. While country case studies suggest some common patterns in terms of poverty and inequality across trade liberalization episodes, evidence is mixed. However there is broad consensus that the benefits of trade liberalization for growth and poverty ultimately depend on productivity increases in some sectors and the corresponding capacity of the economy to reallocate

Figure 1.21. Share of Income from Social Transfers 2010

Source: Bussolo and Lopez-Calva (2014) and ECA SPeeD as reported in the Public Expenditure Review, World Bank (2014).

Figure 1.22. Share of Income from Social Transfers 2010

Source: Bussolo and Lopez-Calva (2014) and ECA SPeeD as reported in the Public Expenditure Review, World Bank (2014).

Note: Year for which data is shown is indicated next to country label.

resources—both labor and capital—to more productive sectors. This is also consistent with the findings for Georgia of a recent trade sustainability impact analysis⁹ commissioned by the EU.

This report focuses on jobs and trade, by taking a closer look at the key drivers of export competitiveness in Georgia, which is critical to scaling up production and employment. Chapter 2 takes a closer look at export dynamics and firm survival. Chapter 3 explores the links between trade and labor in Georgia and discusses skills and skills development as a means to relieving at least partially the constraints on labor mobility. This is especially important if trade and trade policy (including closer ties with the EU) are to impact job growth as desired since resources will have to move from less to more productive sectors. Chapter 4 digs into the pending agenda on trade and transit facilitation. Chapter 5 discusses the constraints on firm competitiveness in the context of regional disparities and contributes to our understanding of the horizontal constraints on competitiveness at the sub-national level. Chapter 6 assesses the role of financial access in promoting MSME growth and capacity to generate much needed employment. Chapter 7 updates our understanding of Georgia's external imbalances in the light of trade patterns and its drivers, going deeper into determinants of the current account deficit and its sustainability.

⁹ See Trade Sustainability Impact Assessment in Support of Negotiations of a DCFTA between the EU and Georgia and the Republic of Moldova, October 2012.

Table 1.2. Proposed Policy Framework

Policy Area	Asset Accumulation	Intensity of Use	Prices	Transfers	Sustainability
Macroeconomic fundamentals and fiscal systems	Encourage capital and physical asset accumulation, especially beneficial to small borrowers/investors through stable macro environment.	<i>Create an economic structure that generates more employment opportunities and incentives to formalize employment.</i> Ensure no disincentives to work generated by social transfers/taxes for low wage earners. Public spending, especially investment spending, needs to be in line with development priorities, including the concern for inclusiveness of growth.	<i>Lower costs of borrowing, especially beneficial to small borrowers/investors.</i> <i>Address effectively issues of food and energy inflation.</i> Address the impact of fiscal systems on prices.	Strengthen targeting to the chronic poor and distinction from transitory poor.	Savings environment Financial Stability <i>Macroeconomic sustainability</i>
Service Delivery	Emphasis on quality of and access to all levels of education, ensuring equality of opportunities to gain quality education for b40 and t60. Strengthening quality and access of health services for the entire population, including the b40. <i>Special training, life-long learning, and skills development, quality and access (b40).</i>	Back to work incentives to support LFPRs, in particular of women and IDPs. <i>Strengthening connectivity in terms of development of markets and logistics, ensuring that the necessary infrastructure and markets access reach rural areas and other less well-off regions.</i>	<i>Focus on skills for productivity and real wage growth, also with a view to decrease the gender wage gap.</i> <i>Returns affected by quality of public goods.</i>	Transfers transparently, efficiently and effectively managed. Policies need to ensure that the b40 has the necessary information and easiness to access social assistance and other services.	Monitoring and evaluation to support quality of public services, especially to the b40. Public expenditures should be efficient and not threaten fiscal sustainability.

Table 1.2. Proposed Policy Framework

Policy Area	Asset Accumulation	Intensity of Use	Prices	Transfers	Sustainability
Well-functioning markets/ business environment	<i>Support credit access to new and small and mid-sized firms.</i> Are markets competitive for MSMEs?	<i>Removing constraints on firm productivity growth that limit economic participation of the b40.</i> <i>Create a favorable business environment in areas where b40 are overrepresented, so as to foster inclusion and economic opportunities, including in entrepreneurship, for the b40.</i> <i>Allocative efficiency.</i>	<i>Constraints imposed by markets or by the business environment on productivity growth need to be reflected in real wage levels.</i>	<i>Public subsidies to firms that distort returns and competitive conditions should be carefully evaluated.</i>	State capture of regulation Business environment generating inequality traps and threatening social cohesion
Risk management	Provision for cushioning assets from shocks, especially b40.	Inability to manage risks generating lower asset use.	Prices reflect risks	Mechanisms generating adverse incentives/Moral hazard.	Longer run systemic risks.

Source: Adapted from Bussolo and Lopez-Calva (2014).

Note: In *italics* if this report discusses proposed focus area.

CHAPTER 2: SUSTAINING EXPORT GROWTH IN GEORGIA

As a small and open economy, Georgia's growth prospects are inevitably linked to its ability to compete, and to grow and sustain exports. Georgia's export growth rates have been impressive, at well above 10 percent per year on average since 2000. Over 2006–12, Georgia's exports tripled in nominal value and doubled in volume. A closer look at the sources of export growth reveal that firms mainly relied on growing exports of the same product or exports to the same destination. As well, survival has been a challenge. The average length of an active export product is 2.15 years, compared to 2.84 in Lithuania, 3.35 in Slovakia, or 3.5 in Czech Republic, with the same period considered across all countries.

Understanding the main challenges to export survival is crucial from a policy perspective if exports are to grow and if this growth is to be sustained. Sustainable export growth is typically associated with an expansion into new products and new markets (the extensive margin), the extension of existing export relationships (the intensive margin) and the survival of these relationships across time (the sustainability margin). Exporting is a risky activity characterized by a high degree of uncertainty resulting in flows of short duration.¹⁰ Low survival rates can entail welfare losses for the economy as a whole when sunk costs of entry and exit are high. An important difference between successful and less successful exporters is the former's ability to maintain export relationships for longer periods, which allows deeper trade, export growth, and job creation. A detailed firm level dataset is matched with export transaction data for the period 2006–12 to explore export dynamics in depth. This unique dataset allows us to assess export dynamics in detail.

Productivity and product diversification, foreign partnerships and networks matter for export survival. Firms that are more diversified at the product level show better chances of survival relative to those that have a concentrated export bundle. However, firms that are more diversified at the destination level show lower survival rates than those with export bundles concentrated in fewer destinations. Third, it is production efficiency, rather than size, that boosts export survival chances.

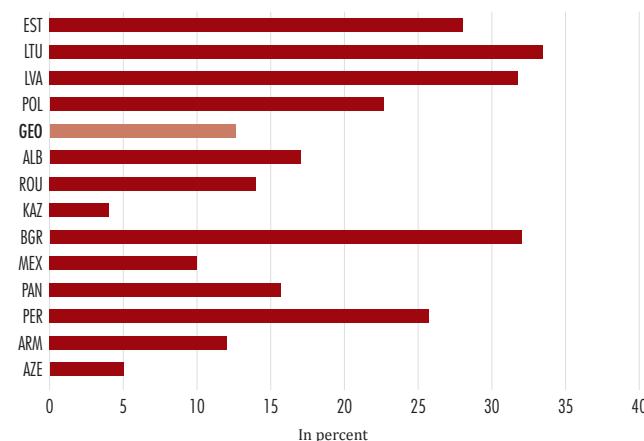
The rest of this chapter is organized as follows. Section A analyzes the characteristics of exporting Georgian firms in terms of size, ownership, productivity and technology, and diversification patterns. Section B reviews trends in the survival of Georgian export flows and its determinants. Finally section C derives some policy implications and concludes.

¹⁰ See, for example, Besedes and Prusa (2004, 2006), Brenton et al (2010), Cadot et al (2013).

A. Export Dynamics in Georgia¹¹

The share of exporting firms is low relative to other countries in the region and movements in and out of export markets are quite large. The share of exporting firms ranges from 10 to 16 percent of all firms in the sample, lower than the top performers in the ECA region (Figure 2.1). However movements in and out of export markets are large relative to other countries. Table 2.1 shows the dynamics of entry and exit into the export market by tracking firms that exported the year before and ceased to export the following year and vice-versa (firms that exported but were not exporting the year before). In-sample exit rates out of exports were between 15 and 20 percent while entry rates into exports were slightly lower. These figures are likely to be underestimated because larger firms are over-represented in the matched dataset. Computing entry and exit rates for the entire universe of Georgian exporters from the full custom data gives rates close to 50 percent, high by international standards.

Figure 2.1. Share of Exporting Firms in Total



Source: World Bank staff calculations.

Table 2.1. Exit from and Entry into Exporting in Georgia, 2006–12

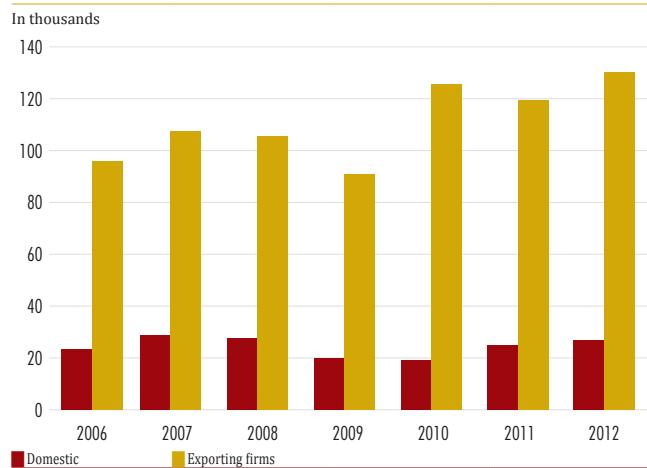
Year	Firms	Exporting Firms (%)	Exit from Exporting	New Exporters	Total Exported Products (HS6)	Total Exporting Destinations
2006	2,117	234 (11.1)	45		265	50
2007	1,581	166 (10.5)	29	30	286	55
2008	1,606	168 (10.5)	25	29	317	51
2009	2,415	237 (9.8)	46	28	397	70
2010	2,220	211 (9.5)	34	37	479	69
2011	1,848	292 (15.8)	46	36	665	76
2012	2,029	255 (12.6)	...	42	588	71

Source: Authors' Calculations based on Geostat—Industrial Survey.

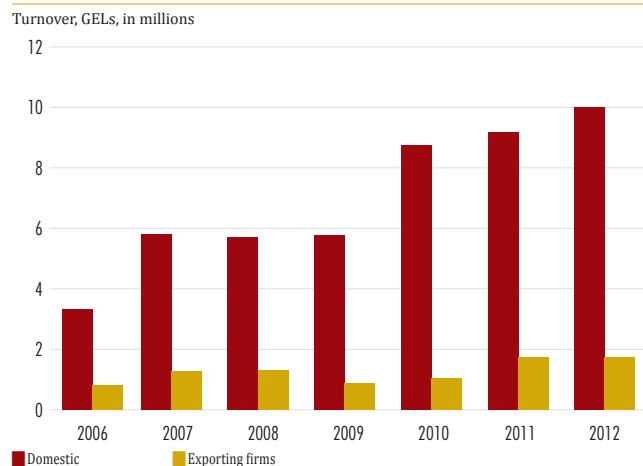
Exporters are larger both in terms of turnover and employment. In 2006, exporters' turnover and employment were four times bigger than those of non-exporters. The difference increases over the years with exporters having on average five times the turnover and employment of non-exporting firms in 2012, reflecting higher growth.

Exporters are more capital intensive, more productive, and show a higher share of foreign ownership than firms oriented to the domestic market. TFP, an indicator of firm efficiency that measures the amount of

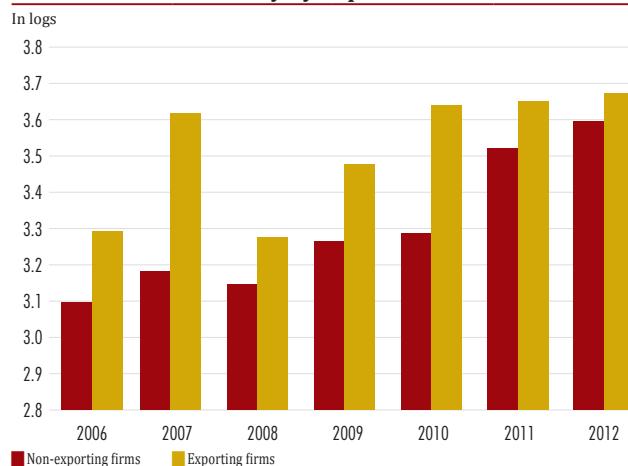
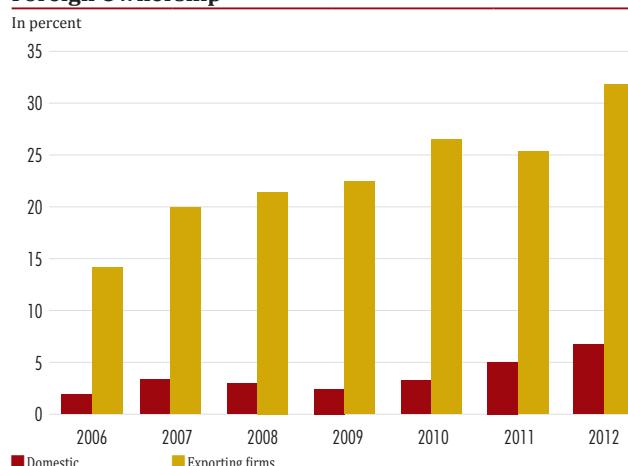
¹¹ The analysis is based on export transaction data merged with firm level data obtained from Geostat, Georgia's National Statistics Office. The firm level data consists of a panel of Georgian firms spanning the period 2006–12. This is matched with Customs data recording all export transactions occurred in the same period using a common firm identifier. Large firms (those with more than 100 employees) are all included in the dataset while small and medium enterprises have been randomly sampled. There are 13,816 firm-year observations with 6,745 firms surveyed at least once in the panel (Table 2.1). On average firms have been surveyed around twice from 2006–12.

Figure 2.2. Employment for Exporters and Non-Exporters (2006–12)

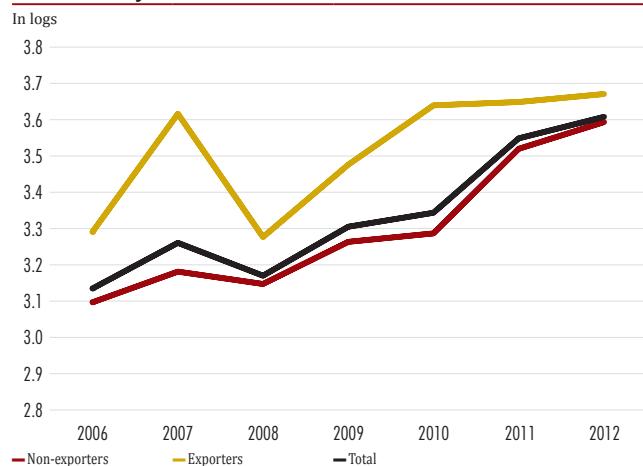
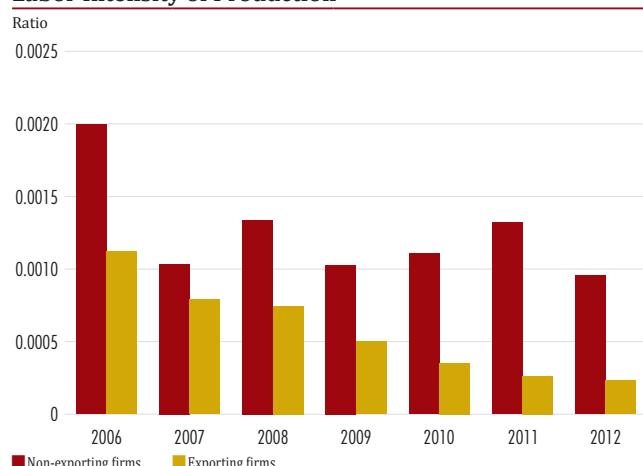
Source: Calculations based on GeoStat firm level data.

Figure 2.3. Turnover for Exporters and Non-Exporters (2006–12)

Source: Calculations based on GeoStat firm level data.

Figure 2.4. Key Characteristics of Exporting Firms**Total Factor Productivity by Exporter Status****Foreign Ownership**

Source: Calculations based on GeoStat firm level data.

Productivity Growth**Labor Intensity of Production**

output a firm can produce with a given amount of inputs, is on average, 24 percent greater for exporters than for non-exporters (see Box 2.1 for a spotlight on productivity dynamics in Georgian exporters). While all firms exhibit growing capital intensity in Georgia, this trend is more pronounced for exporters. The share of foreign ownership among exporters is substantially higher than among non-exporters, and has grown for both groups over time, increasing from 1.8 to 6.7 percent for non-exporters over 2006–12 and from 14 to 32 percent for exporters over the same period.

Multi-Product firms have increased their share in exporting firms and outperform single-product firms.

Multi-Product firms represent a sizable share of exporting firms and this share has increased steadily over the years going from 42 percent to 58 percent between 2006 and 2012 (Table 2.2). However when we only consider significant products (more than 1 percent of total revenues), the average number of products exported per firm falls somewhat and stays more or less stable, though the share of multi-product exporters as a proportion of exporting firms still shows impressive growth. Multi-Product firms have higher foreign participation and are also more diversified in terms of export destinations. These firms also create more jobs and are 6.5 percent more productive than single-product firms.

Table 2.2. Exporters and Multi-Product Firms in Georgia

Year	Firms	Exporting firms	Multiple product exporting firms (% of exporting firms)	Multiple product exporting firms excluding products less than 1% of export revenues (% of exporting firms)
2006	2,117	234	98 (41.9)	87 (37.2)
2007	1,581	166	88 (53.0)	75 (45.2)
2008	1,606	168	88 (52.4)	76 (45.2)
2009	2,415	237	122 (51.5)	104 (43.9)
2010	2,220	211	124 (58.8)	108 (51.2)
2011	1,848	292	160 (54.8)	140 (47.9)
2012	2,029	255	147 (57.6)	128 (50.2)

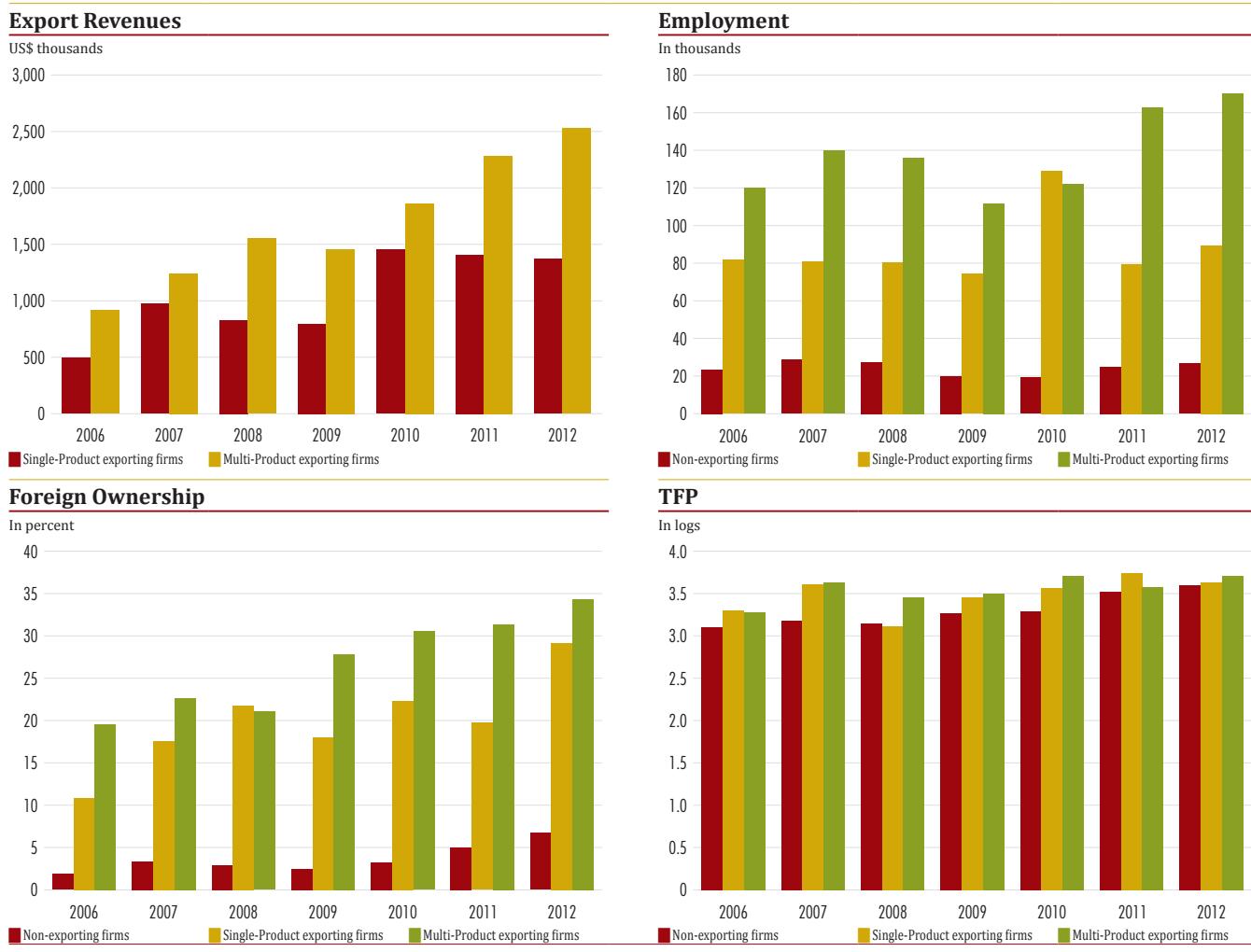
Source: Calculations based on GeoStat firm level data.

Table 2.3. Exporters and Multi-Destination Firms in Georgia

Year	Firms	Exporting firms	Multiple destinations exporting firms (% of exporting firms)
2006	2,117	234	104 (44.4)
2007	1,581	166	87 (52.4)
2008	1,606	168	88 (52.4)
2009	2,415	237	114 (48.1)
2010	2,220	211	112 (53.1)
2011	1,848	292	167 (57.2)
2012	2,029	255	138 (54.1)

Source: Calculations based on GeoStat firm level data.

Multi-Destination firms are also larger, more diversified, and have higher export revenues. While there are no major differences with respect to the labor intensity of technology, TFP is 23 percent greater in multi-destination firms than in firms exporting to a single destination over the 2006–12 period. The size and the

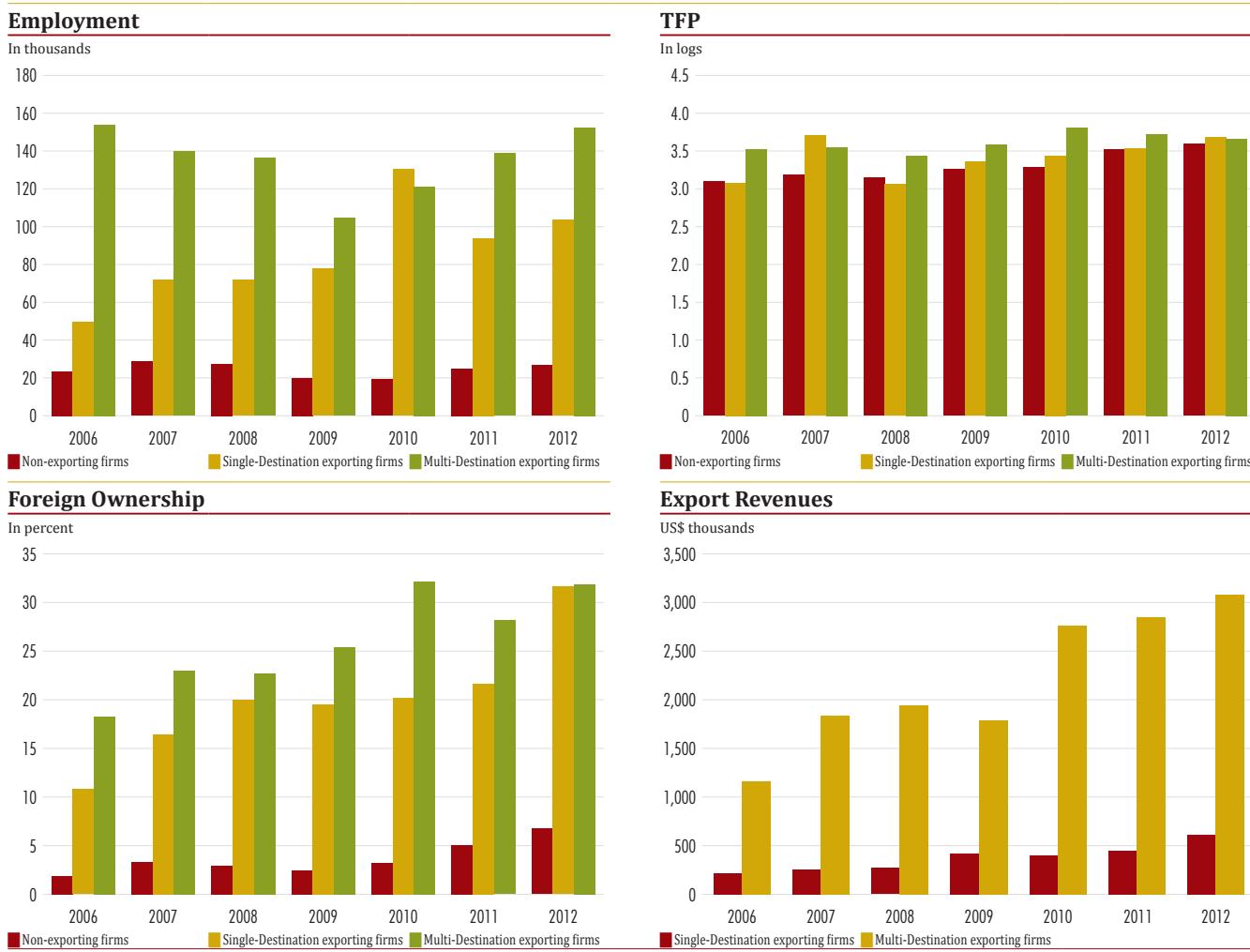
Figure 2.5. Characteristics of Single and Multi-Product Exporters

Source: Calculations based on Geostat firm-level data.

employment premium of multi-destination firms appear to be slightly lower than the one observed for Multi-Product firms. Moreover, while Multi-Product firms' employment premium increased between 2006 and 2012, it declined for multi-destination firms over the same period. In fact, both employment and turnover were more than three times those of single destination firms in 2006 but less than 50 percent higher in 2012.

Export growth is largely accounted for by more of the same products to the same destinations. An export growth decomposition into the intensive and extensive margins shows that about 80 percent of the export growth is due to the intensive margin and 20 percent is due to the extensive margin i.e. due to the addition of new products to the export mix.

Product diversification in Georgia is largely because of new firms. We decompose the extensive margin into a "within-firm" component, which represents the contribution of products exported by continuing firms (firms exporting both in 2006 and 2012) and an "entry/exit" component, which represents the net effect of new products exported by entrant firms minus the products dropped by exiting exporters. Between 2006 and 2012, 75 percent

Figure 2.6. Characteristics of Single and Multi-Destination Firms

Source: Calculations based on Geostat firm-level data.

of the export growth due to product diversification was within new firms. 30 percent of the growth in the number of product exported is due to within firm diversification while 70 percent is due to the entry of new firms.

There is substantial small scale experimentation with new products, at low survival rates. Attempts to add new products are typically at a small scale and “experimental.” These products, however, struggle to contribute substantially to export growth probably because of low survival rates which impedes their consolidation. The number of export products increased from 1497 in 2006 to 2024 in 2012. In 2012 the product mix is equally split between continuing products (products already exported in 2006) and new products. However, new products only account for 16 percent of total exports in terms of value.

From the perspective of destinations, export growth is obtained almost entirely from increased exports to the same destinations. The extensive margin accounts for a mere 2.8 percent of total export growth in the period. This implies that at the firm level destination diversification has been minimal and much lower than product diversification. Contrary to what it is seen for product diversification, the major part of the destination

Box 2.1. Productivity Dynamics

Firm productivity is defined here as the amount of output produced for a given level of inputs used. Productive efficiency of firms, that is the amount of output produced with a given amount of inputs, measured by the (log) total factor productivity, has been increasing since 2006 in Georgia, at a rate of 8.2 percent per annum. While TFP was relatively stagnant during 2006–09, it increased almost exponentially since 2010. Interestingly, exporting firms' TFP is higher than non-exporting firms' TFP, but the rate of growth of TFP is lower for the former than for the latter group (6.5 percent per annum versus 8.7 percent per annum, respectively).

Figure 2.7. Productivity in Georgia Has Increased Systematically Since 2006

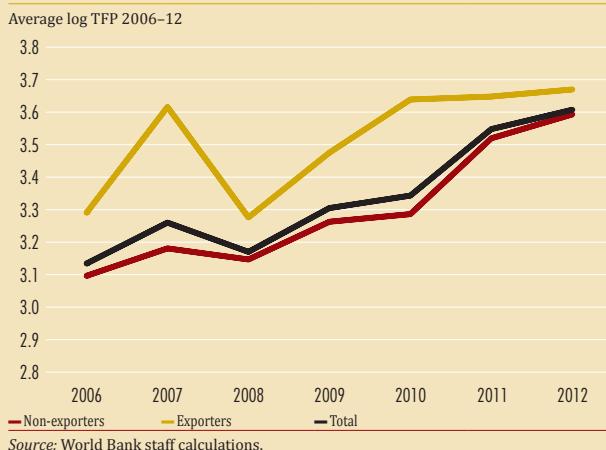


Table 2.4. Production Functions Estimates

Variables	(LP) lnY	(OLS) lnY	(FE) lnY
Log employment	0.858*** (0.0356)	0.853*** (0.0191)	0.791*** (0.0247)
Log capital stock	0.191*** (0.0730)	0.113*** (0.00969)	0.0512*** (0.0125)
Log energy	0.165 (0.116)	0.258*** (0.0105)	0.192*** (0.0116)
Constant		3.455*** (0.0431)	4.353*** (0.0994)
Observations	6,209	6,209	6,209
R-squared		0.724	0.359
Waldcrs	3.849		

Source: World Bank staff calculations.

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 2.8. Internationalized Firms are More Productive in Georgia too, but their TFP Premium has Fallen Over Time

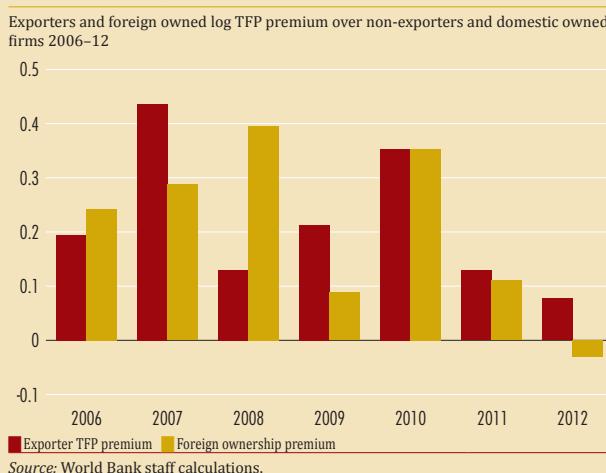
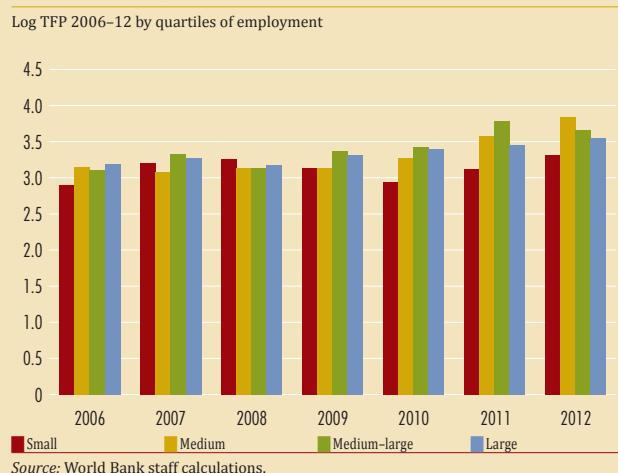


Figure 2.9. Medium to Large Firms are More Productive



Internationalized firms and larger firms are more productive. As mentioned above, exporting firms are more productive than non-exporters, displaying a productivity premium of 17 percent, on average, above non-exporters over the sample period. However, this premium has been falling due to TFP growing faster for domestic oriented firms than for exporting firms. Similarly, foreign owned firms display a 15 percent productivity premium, on average, above domestically owned firms. Larger firms are more productive than smaller firms. Firms in the first quartiles of the employment distribution, which are very small (one or two employees), have the lowest productivity, and productivity tends to increase with size although not monotonically. For example, medium-large firms are 34 percent more productive than small firms and 7 percent more productive than medium-small firms, while large firms are 8 percent less productive than medium-large firms.

Source: World Bank Staff Calculations.

diversification happens within continuing firms (62.2 percent) while new destinations introduced by entrants account for 37.8 percent of the extensive margin.

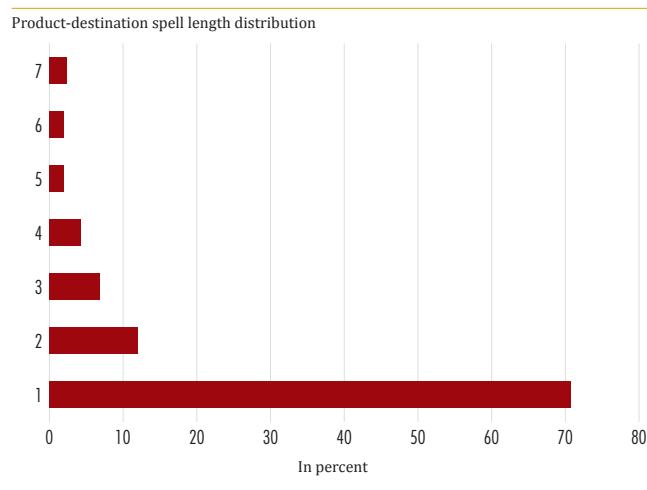
B. Export Firm Survival in Georgia

The survival rate of Georgian export is low compared to other countries in the region. A firm-product-destination export spell is defined as a period in which a firm continuously exports a particular product (HS 6 digits) to a given destination. We use a three-year spell definition meaning that if a product is not exported for three consecutive years the spell is completed. If the firm starts exporting that product again following the three year period it is considered a new spell. The mean spell length over which an export flow is active for Georgia is on average slightly more than two years, while for Lithuania it is 2.84 years, for Slovakia 3.35 years, and for Czech Republic 3.5 years.

A high percentage of spells are of short duration, though longer spells are associated with higher exports. Around 70 percent of product spells last one year, while only about 18 percent exceed two years. A higher duration of export relationships is associated with higher exports, that is, when the export relationship survives beyond the first two years, it grows in value over time, suggesting that as exporters and clients face imperfect information, they experiment with small export transactions, which grow in value as additional information is obtained by both parties.

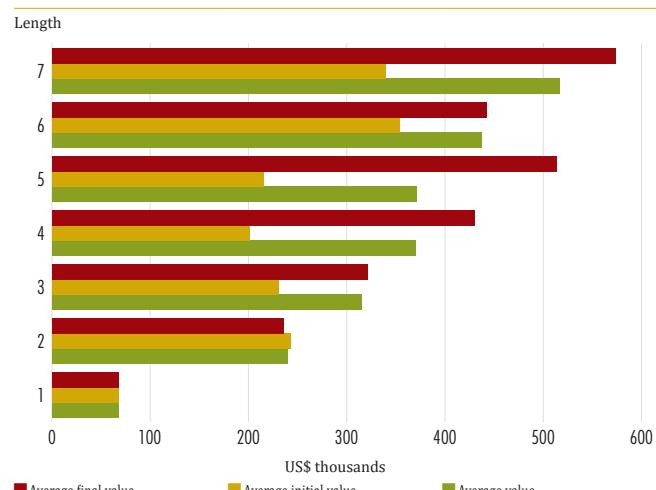
With imperfect information firms face a high degree of uncertainty—and sunk costs—when entering export markets, which vary by sector. Firms need to obtain information about export costs, the demand profile of potential markets, the requirements they need to meet to enter these markets, etc. They also need to judge in advance, their own ability to survive in the export markets given market conditions. There is need for significant research, and the willingness and ability to invest in establishing presence in a new market. There is substantial sectoral heterogeneity in survival probabilities. The probability of survival is higher for traditional firms producing vegetables, milling, cereals, organic agents, textiles and footwear products.

Figure 2.10. Distribution of the Average Spell Length in Years of a “Product-Destination” Combination



Source: World Bank staff calculations.

Figure 2.11. Average Export Value at Each Spell Length



Source: World Bank staff calculations.

Survival in export markets is for the fittest, rather than for the largest. More productive firms perform better at keeping the export flow active, displaying longer trade relationships. The effect is not very strong though as doubling the average firm total factor productivity would increase the survival probability by 0.55 percentage points. Instead, larger firms (with size measured in term of number of employees) tend to have lower probabilities of survival in export markets after controlling for productivity.

Foreign owned firms have a lower probability of dropping a product. The effect is substantial even after controlling for their higher productivity: products exported by foreign owned firms have an average survival probability of 2.3 percentage points higher than domestic owned firms. This result is in line with the theoretical expectations that see information and network barriers as important obstacles to export success. Foreign firms are likely to have more established links with foreign partners and better knowledge of foreign markets that can help in identifying successful export products.

Product and destination diversification interact with export survival in a complex way. While product diversification increases the chances of survival, destination diversification decreases them. Firms with higher product diversification have higher survival probabilities and are less likely to drop an export product. Adding one product to the firms' export mix from the average of 3.3 products per firm increases the probability of survival by 0.32 percentage points. The number of export destinations, instead, increases the hazard of ending the transaction. Firms reaching a larger number of markets tend to have a higher probability of dropping products from their export mix. The average number of destinations for firms in the sample is three. Adding one destination would increase the likelihood of dropping a product by 0.83 percentage points. It is possible that the information required to export to a particular market is high but not easily transferrable across destinations. This would imply that the challenges of surviving increase with the number of destinations (or that the chances of survival decrease with them). Instead, the information required to exporting specific products is transferrable across products. Therefore, given that a firm is exporting one product already, it faces less costs of exporting an additional variety, and then, survival chances increase with the firms' product scope.

There is strong evidence of network and information spillover effects. Having many firms producing and exporting a given product in one market increases survival probability, even after controlling for sector comparative advantage. Doubling the number of firms exporting the same product from the average of 1.8 would increase the survival probability by 1.43 percentage points. Although the effect does not appear to be large, it is important, considering that around 30 percent of product spells survive the first year this would account for a proportional increase of 5 percent (from 30 percent to 31.5 percent)¹². International evidence suggests two channels of influence for networking: improved information sharing and strengthened financial access as lenders risk perception is reduced existing firm presence in the market. Interestingly, survival is not higher in markets with which Georgia has a free trade agreement (FTA). This effect, however, is likely captured by the network effects. It may also imply the need for a stronger push to leverage the market access opportunities offered by the FTAs. Cultural affinities and distance also increase export survival, reflecting long standing trade relationships and demand for traditional products. Regional coefficients are statistically significant and are associated with a higher probability of survival in export markets. Products to traditional markets in ECA countries and to Europe are about 21.5 and 20 percentage points respectively more likely to survive than those that go to South Asia (the baseline).

Firms with more capital intensive production technologies have higher survival probability for their export products. The capital to labor ratio tends to be higher in firms that survive. Looking at the sectoral patterns of labor intensity, we see that there is no sector which is labor intensive. Instead labor intensity seems to depend more on firms' characteristics within sectors (domestic vs. exporting firms), with exporters tending to employ more labor but relatively more capital¹³.

C. Conclusions and Policy Messages

Georgian exporters are no exception in terms of being larger and more productive than domestic oriented firms. As is generally the case internationally, exporting firms in Georgia are far stronger performers than their domestic-oriented counterparts. They are more productive and therefore grow faster than non-exporters in terms of employment and output. They also represented about 9–16 percent of the total number of firms in the economy (excluding services), which is in line with other countries in the region, over the 2006–12 period. During this period, exports doubled in volume and tripled in nominal value.

Export growth in Georgia has been largely due to more of the same products to the same destinations. Export diversification has been modest, and though there is noteworthy experimentation with new products, especially by new firms, this remains largely small scale. New products were 50 percent of the total number of

¹² The firm-product couple instead of the firm-product-destination triplet gives similar results. The network variable is again statistically significant and positively related to the survival probability. The effect is much stronger in this case: doubling the number of firms exporting the same product (independently of the destination market) from the average of 3.9 would increase the survival probability by 2.6 percentage points. This would account for a proportional increase of 8.7 percent (from 30 percent to 32.6 percent) of the first year survival rate.

¹³ Positive terms of trade shocks are not significant. Increases in relative prices increase the profit margins of exporters and should increase the probability of survival. The product real exchange rate is however not statistically significant. Export survival is not affected by the product's degree of differentiation.

exported products in 2012 but accounted for only 16 percent of total exports in terms of value. 75 percent of the new products introduced were by new firms. With high costs of learning about foreign demand conditions, tastes, and product specification requirements, many firms engage directly in small international transactions without having a thorough understanding of the market. The fact that firms with higher initial values survive longer in export markets seems to support this interpretation. Firms that start exporting at a greater scale are more likely to have undertaken prior thorough market research, and to be more confident about the survival of its market relationship with foreign buyers.

While export survival is crucial for deepening trade links and growing exports, Georgian export spells tend to be of short duration. 75 percent of new export products and 70 percent of all exports products fail to survive past their first year. If they do survive, the probability of being dropped reduces significantly.

Understanding what factors influence the duration of export flows in global marketplace is important for policy purposes, given the important potential role of exports in growing jobs and boosting shared prosperity. The main drivers are:

- a. **Productivity: Survival is for the fittest, not for the largest.** While the impact is small, it dominates the size effect, so that large firms appear to be negatively associated with survival once productivity levels are accounted for. Since large firms are more likely to perform well, the partial impact of size should not be over-interpreted but only seen as evidence of the primary importance of productivity growth in sustaining exports.
- b. **Firms with foreign participation are more likely to survive.** This may reflect better management, closer-to-the-frontier technologies, greater knowledge of international markets, and more capacity for and access to finance and market research.
- c. **Network effects are important.** The chances of surviving active in export markets increase with the number of firms exporting the same product and to the same destination. The effect is unchanged when controlling for sectoral comparative advantage and sector fixed effects. There are two channels through which network or spillover effects may improve export survival. First, the more firms exporting one product, or to one destination, the more information available there is about the specificities of exporting that product or exporting to that destination. That information may spillover to new entrants or to diversifying firms, which may benefit from it, since it reduces the risk of entering in a completely new market. Second, increased information also spills over to, for example, the financial sector, which may now find it less risky to finance innovative activities of firms trying to diversify.
- d. **Diversification matters.** Product diversification is positively correlated with survival with market diversification is associated with a higher risk of dropping products. This finding may reflect the strong correlation between export survival and deeper trading relationships, networking, and traditional ties, and is likely to change with more investment in export promotion and financing, and market research.

Table 2.5. Main Policy Messages

Findings	Policy Suggestions
<i>Strengthening export competitiveness is critical for job growth</i>	<i>Improving access to finance will support export diversification both in terms of products and destinations given that these are costly and risky activities for firms. This will also support R&D, adoption and adaptation of new products and technologies and encourage smaller and newer firms to innovate, scale up, survive and grow jobs.</i>
Exporters are better performers, including on job growth, and are more productive than domestic-oriented firms.	<i>Facilitating university-enterprise linkages to build a stronger national system of innovation to support the dissemination of basic knowledge from academia to the productive sectors of the economy, and from firms to universities will help reduce the costs of diversification and will encourage innovation for productivity growth</i>
Product diversification is associated with better productivity, growth, job creation, and size but is costly and risky	<i>Strengthening export promotion activities to reduce entry costs associated with informational asymmetries</i> Informational spillovers contribute to improved export survival and can be supported by strengthening the provision of information about foreign consumers' preferences, help with the identification of potential buyers, and assist in tackling the regulatory complexities associated with serving foreign markets. Any reform process in this area would benefit from a transparent system of monitoring and evaluation, based on improved firm level and transactions data, to ensure that scarce public funds are at their best use.
Survival depends on productivity growth	
Ability to benefit from networks and foreign partners, and ability to product diversify; foreign participation is also beneficial for productivity growth and therefore affects survival through multiple channels	
Larger initial transactions are associated with larger, more productive firms, and with higher survival probabilities	<i>Encouraging foreign direct investment and facilitating interaction between foreign and domestic firms</i> Inflows of foreign investment have been targeting services sectors such as construction and banking, and real estate. Investment promotion activities could be focused on reorienting potential investors to tradable sectors and more innovative activities

CHAPTER 3: TRADE, LABOR OUTCOMES, AND SKILLS

Export growth has been high in Georgia, albeit mainly driven by commodities of unprocessed goods, which also dominate the labor market. The labor market in Georgia is dominated by the low skilled primary sector. The average growth rate of goods exports between 2000 and 2013 was 20 percent. This growth was driven primarily by chemicals and base metals, but other export sectors also exhibited strong export growth. Foodstuffs and vegetables products, two export sectors that are important for Georgia, have been less dynamic in recent years but nevertheless more than doubled in value since 2000. Both sectors contributed more to export growth in the earlier part of the last decade, but also witnessed strong growth in 2009.

While Georgia's export sophistication in terms of labor content has changed only modestly over the past decade, exporting firms outperform domestic market-oriented firms in terms of job creation. Export sophistication in terms of labor content—in particular the skills content of exports—has declined for non-mineral and base metal exports to the EU, which are increasingly dominated by primary goods including vegetable products that embody lower skills and lower per worker value added and capital. However, the skills content of exports to the ECA region has increased, reflecting mainly wine and processed food. Georgia has not kept pace with the region's more dynamic economies, namely Poland, Estonia, and Latvia in terms of export sophistication. However it outperforms the rest of ECA in terms of employment generation of exporting firms.

Strengthening the link between labor market outcomes and trade will depend on how smoothly workers can reallocate to higher productivity sectors. Exporters hire more workers, including more women than domestic firms even though they employ a lower share of female workers depending on sector and destination. While higher exports to the EU favor female employment, trade with ECA favors male workers. Strengthening the impact of trade on labor market outcomes depends largely on the ability of workers to redeploy towards more productive sectors. In Georgia, it is relatively easy for workers to find jobs in agriculture, and more difficult to move into manufacturing or public sector employment. Employer surveys and simulations of the labor market suggest that shortages of skills limit labor mobility into non-agricultural sectors.

The skills shortage is consistent with a simulated lower bound unemployment rate of 15 percent under specific assumptions. Innovative and foreign-owned firms in Georgia report a significant skills constraint. In fact the bulk of employment in Georgia remains in traditional sectors, where the skills constraint is viewed as less of an obstacle. Even were jobs to grow sufficiently to absorb existing excess supply of labor at each skill level, there would be a skills mismatch because of insufficient availability of workers with the right skills, even broadly defined, i.e., without digging deeper into specific professional qualifications. This skills mismatch induced unemployment rate is simulated to be as high as 15 percent.

The rest of this chapter is organized as follows. Section A discusses employment and trade patterns and Section B looks at export sophistication in terms of labor content. Section C examines labor mobility in Georgia and Sections D and E assess the skills context in the country and review international experience. Section F concludes.

A. Employment and Trade Patterns

The labor market in Georgia is dominated by the low wage, low skill primary sector. Based on household survey data, 57 percent of the workforce is in the primary sector, mainly in agriculture. Two-thirds of these workers are unskilled. The average wage earned in agriculture was only one third of that in manufacturing, which employs only 4.4 percent of the workforce. Out of those employed in manufacturing, 62 percent are skilled and 63 percent are male. The highest wages are in mining and quarrying—89 percent male—and construction—97 percent male—and services, which are also sectors that have recorded high capital investments and productivity growth. Skilled manufacturing workers earn 20 percent more than their unskilled counterparts.¹⁴ Interestingly, the skill wage gap in agriculture is negligible, supporting the idea that agriculture is an employer of last resort.

Gender gaps are large in the labor market. The female labor force participation rate (LFPR) has remained relatively stable at around 59 percent. This is comparable to the trends observed in Poland. Estonia and Latvia have shown far more dynamism in attracting women into the labor force, with the female LFPR reaching nearly 72 percent in both countries in 2011, compared to 77 percent for their male counterparts. The best employment opportunities for females tend to be concentrated in public sector service jobs, which accounted for a third of skilled women. Females account for 57 percent of public sector jobs, mainly due to the preponderance of women in low paid teaching jobs, which accounted for 19 percent of total female employment. Agriculture accounted for 60 percent of female employment. In the manufacturing sector, men earn 92 percent more than women on average (Table 3.1).

Table 3.1. Labor Market Characteristics

In percent unless otherwise indicated

	Total	Male	Female	Unskilled	Skilled
<i>Employment Share</i>					
Agriculture, hunting, forestry, fishing	55.8	49.6	50.4	64.7	35.3
Mining, quarrying	1.1	88.9	11.1	45.3	54.7
Manufacturing	4.4	63.1	36.9	37.6	62.4
Construction	3.3	96.8	3.2	48.1	51.9
Public services jobs	15.6	43.0	57.0	17.2	82.8
Private services jobs	19.8	59.1	40.9	34.7	65.3
<i>Median Monthly Wage (current Georgian lari)</i>					
Agriculture, hunting, forestry, fishing	100.0	111.6	72.0	100.0	100.0
Mining, quarrying	500.0	500.0	325.0	600.0	330.0
Manufacturing	300.0	383.3	200.0	250.0	301.6

¹⁴ The sectoral wage gaps in the GeoStat wage data are significantly higher.

Table 3.1. Labor Market Characteristics

In percent unless otherwise indicated

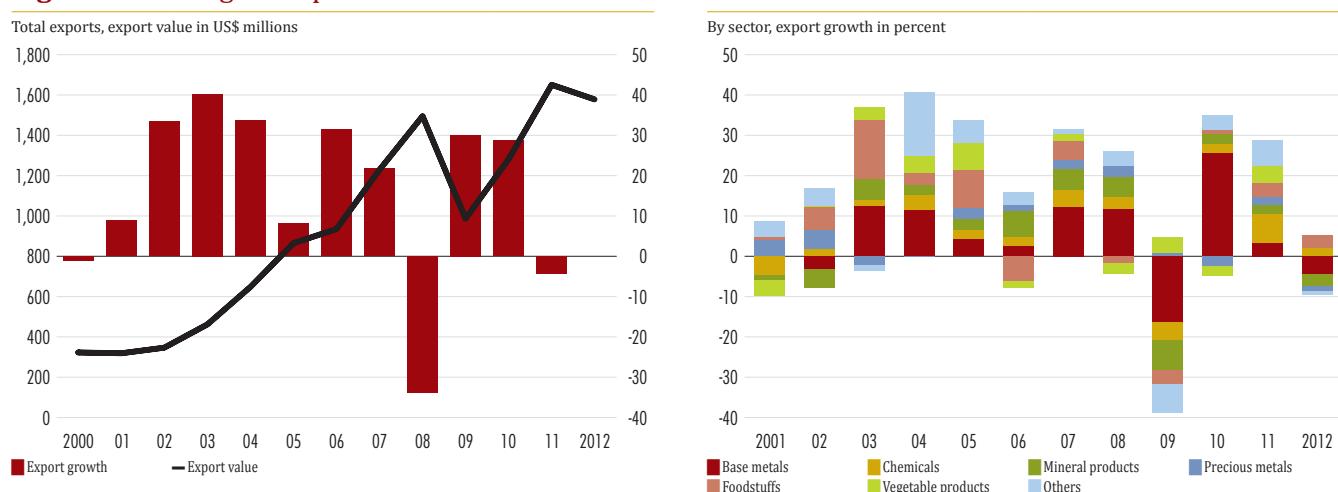
	Total	Male	Female	Unskilled	Skilled
Construction	333.3	333.3	-	283.3	400.0
Public services jobs	320.0	595.0	265.0	260.0	330.0
Private services jobs	300.0	378.3	238.3	230.0	333.2
<i>Employment Share of Skilled Workers</i>					
Agriculture, hunting, forestry, fishing	35.3	35.0	35.7	n.a.	n.a.
Mining, quarrying	54.7	52.3	73.7	n.a.	n.a.
Manufacturing	62.4	62.2	62.8	n.a.	n.a.
Construction	51.9	50.8	86.7	n.a.	n.a.
Public services jobs	82.8	73.3	90.5	n.a.	n.a.
Private services jobs	65.3	61.9	70.6	n.a.	n.a.

Source: Georgia Integrated Household Survey 2011.

Notes: Skilled is defined as college, technical school, or professional degree, a Bachelor's degree, or higher. Wage data may vary from that published by GeoStat, in particular for the agriculture sector. The Integrated Household Survey only published household-level income data, so industry-level wages are calculated using household that work in the same industry. Households with zero reported income are dropped.

Georgia's labor force has undergone a fundamental shift in terms of education attainment composition since 2002, with a much larger share of the population having secondary level education. Whereas in 2002 nearly half of the labor force had only a primary education, this share fell to under 10 percent by 2007, while those with a secondary education increased to 60 percent. But those with a secondary education also account for the largest share of those unemployed, namely 56 percent (compared to only 5 percent for those with primary level education) in 2011.

Export growth in Georgia has been driven by the primary sector, especially chemicals and base metals. Georgia's overall export growth has been strong, increasing steadily over the last decade at an average growth rate of over 20 percent between 2000 and 2013. Overall, Georgian goods exports peaked in 2013 at US\$2.9 billion, up from US\$324 million in 2000. This growth was driven primarily by base metals and chemicals, but other export sectors also exhibited strong export growth (Figure 3.1 right panel). Foodstuffs and vegetables products, two

Figure 3.1. Georgia's Export Growth

Source: World Bank staff calculations.

export sectors that are important for Georgia, have been less dynamic in recent years but nevertheless more than doubled in value since 2000. Both sectors contributed more to export growth in the earlier part of the last decade, but also witnessed strong growth in 2009.

Exporting firms tend to be larger on average compared to the rest of the ECA region, and hire more skilled workers and women in absolute terms. Georgian exporting firms tend to be larger than non-exporting firms by more than a factor of three, compared to two for ECA¹⁵. This difference may reflect a higher fixed cost of exporting in Georgia than other ECA countries, which only larger, more productive firms can overcome. Or it may reflect a larger productivity gap between the largest firms and SMEs in Georgia than in other ECA countries. Georgian exporters hire more female workers than non-exporters though the share of female employees is smaller in exporting firms, with 37 percent of the workforce being women in exporting firms compared to 50 percent in non-exporting firms. Exporting firms also hire more skilled workers than non-exporting firms though the *share* of skilled workers is smaller in exporting firms, with 40 percent being skilled in exporting firms compared to 56 percent in non-exporting firms. This trend contrasts that of ECA where the share of skilled workers is slightly higher in exporting firms than non-exporting firms, 52 percent compared to 49 percent.

The share of exporting firms in Georgia is small and declining, though they export more intensively. In Georgia, 25 percent of the firms in the sample were exporters in 2002, falling to 18 percent in 2005, 13 percent in 2009, and less than 9 percent in 2013. Some industries are more integrated with global markets than others. At the industry level a higher share of Georgian food and beverage firms were exporting compared to the ECA average but the share is lower for manufacturing, construction and services, including both wholesale and transport. The share of exports in total sales of exporting firms is higher than in ECA in all significant exporting categories, including food and beverages, metals and minerals, and chemicals.

The European Union and ECA have been Georgia's most important export partners over the last decade. Figure 3.2 depicts the value (left panel) and share (right panel) of Georgian exports destined to the EU27 countries, ECA*¹⁶ and Russia since 2000, illustrating a fairly stable trend that EU27 and ECA* consume about 20 and 50 percent of Georgia's total exports respectively. ECA's share of Georgia's exports fell slightly after the global financial crisis of 2008–09, while the European Union's share changed little. Russia lost importance as a trading partner starting 2005, with the country's share of Georgia's exports falling from 20 percent in 2000 to 2 percent by 2010, before increasing again to about 6 percent mainly because of a recent spurt in wine, water and used car exports in 2013.

The composition of Georgia's exports to the EU, ECA and Russia differs significantly. We compare the sectoral composition of Georgia's exports across its main trading partners. Whereas Georgia's exports to ECA* and EU27 countries have experienced similar growth in value terms since 2000, the composition of exports differs significantly. Exports to the EU27 are more concentrated in mineral products, especially petroleum oils and copper

15 The latest available year from the World Bank Business Environment and Enterprise Performance Surveys was used (2009) for all comparisons with ECA.

16 Note that ECA* denotes the following non-EU non-Russia ECA countries: Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Belarus, Georgia, Croatia, Kazakhstan, Kyrgyzstan, Moldova, Macedonia, Montenegro, Serbia, Montenegro, Tajikistan, Turkmenistan, Turkey, Ukraine, and Uzbekistan. EU27 includes Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and United Kingdom.

ores and concentrates, as well as base chemicals. Foodstuffs have increased significantly however in importance for exports to the EU27 market, from 6.5 million in 2000 to 42 million in 2012. Base metal and mineral products are also important export sectors to ECA, but have been overtaken by agro-based goods, most notably exports of alcoholic and non-alcoholic beverages, which are actually at the higher value end of Georgia's export spectrum.

Figure 3.2. Georgia's Exports by Destination

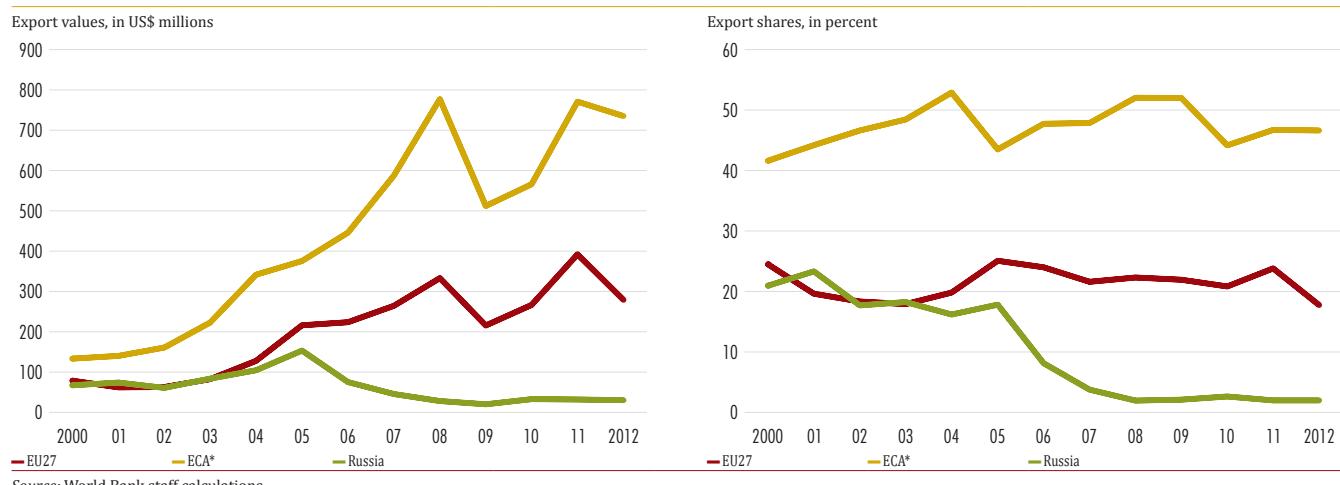
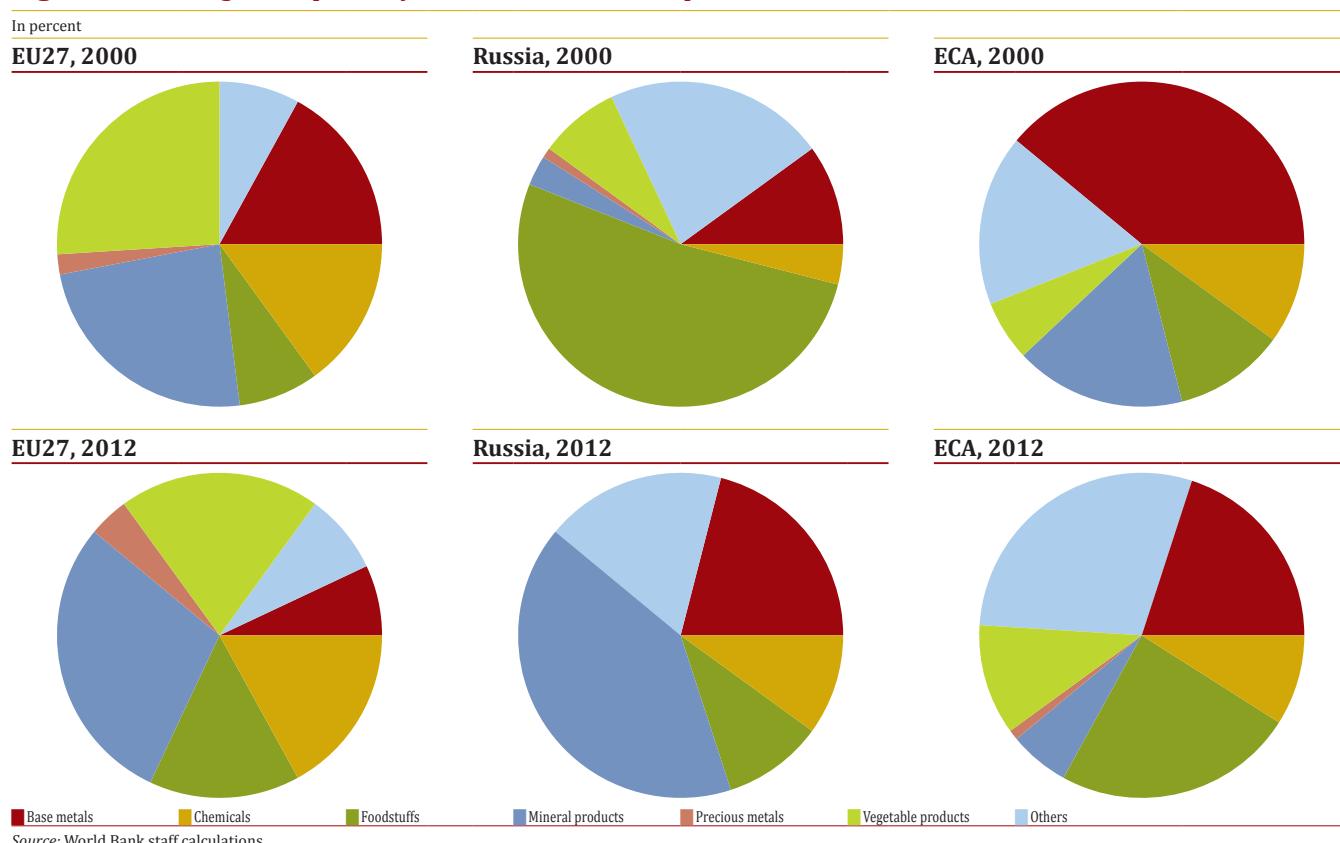


Figure 3.3. Georgia's Exports by Destination and Composition



B. The Labor Sophistication of Georgia's Exports

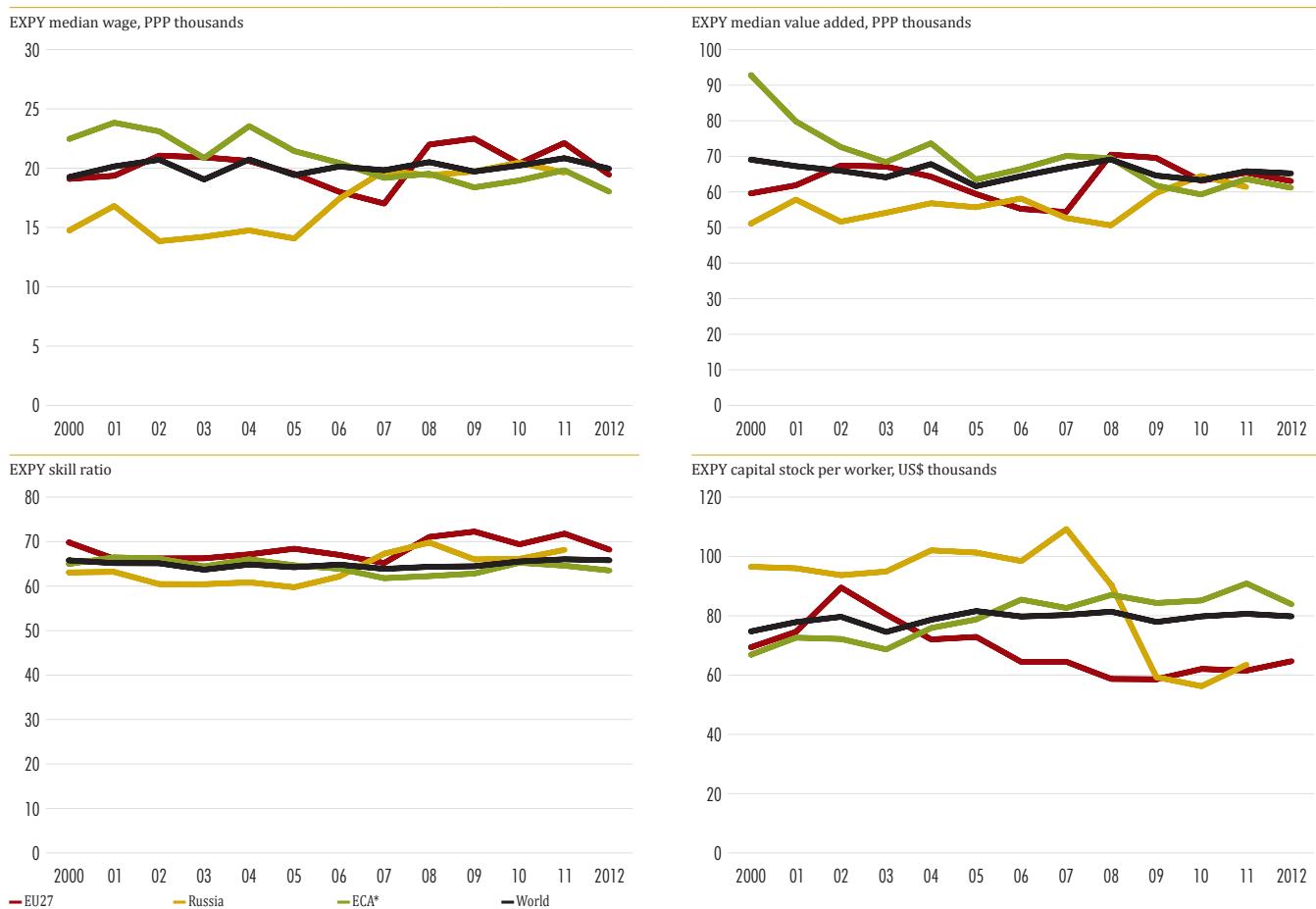
Empirical studies show that the structure of a country's exports—that is, what types of products it exports, in which sectors, with what levels of value-added, and to whom—is linked to the types of labor needed to produce these exports. Understanding the evolution of Georgia's export basket in terms of product mix, product sophistication and destination markets therefore helps understand better potential policy channels that could support improved labor market outcomes, which in turn supports improved export outcomes. We therefore examine trends in export sophistication, by export destination, to infer potential implications for labor market outcomes.

We construct and benchmark export sophistication indicators, in terms of labor content, to better understand the potential impact of export growth on labor market outcomes. We construct four indices or "EXPYs¹⁷" that measure the following aspects of labor sophistication of Georgia's exports: (i) median wage; (ii) median value added per worker; (iii) ratio of skilled to total workers; and (iv) capital stock per worker. For each of these labor-related EXPYs for Georgia, we: (i) look at how their levels have evolved over time since 2000; (ii) consider variations in labor-content across different destination markets, comparing the average for all Georgian exports (i.e., destined to the "world") to those destined to the European Union (EU27), ECA*, and Russia; (iii) make bilateral comparisons of labor content with a range of top-performing ECA exporters including Estonia, Poland and Latvia (advanced "modernizers" in the region); and (iv) repeat each of the above analyses across the entire distribution to see what products are driving the observed differences.

Since 2000, the median wage, value-added and skill content of Georgian exports has changed very little, though there is variation in these trends depending on destination. The solid red lines in Figure 3.4—depicting the labor sophistication for Georgia's total world exports—suggest stagnating trends with respect to all four measures. Georgia's exports to Russia behaved differently compared to its exports to the EU27 and ECA* countries between 2000 and 2006, embodying lower wage, value-added and skill content and much higher physical capital content. But in 2007, the wage and the skill ratio spiked upwards, and physical capital content experienced sharp declines, approaching average levels by 2010 and beyond. This trend was driven primarily by a sharp decline in exports of wine (and to a lesser extent base metals) to Russia.

Georgia's non-mineral exports have not gained in labor sophistication. Figure 3.5 shows that the indices for Georgia's global exports of non-mineral goods (the solid bold line) have been mostly flat, with only marginal increases in median wage, value-added and skill ratio, and a small decline in physical capital content. This observation is consistent with the relatively modest compositional shifts in Georgia's export basket over the past decade. The average ratio of skilled to total workers hovered around 64 percent.

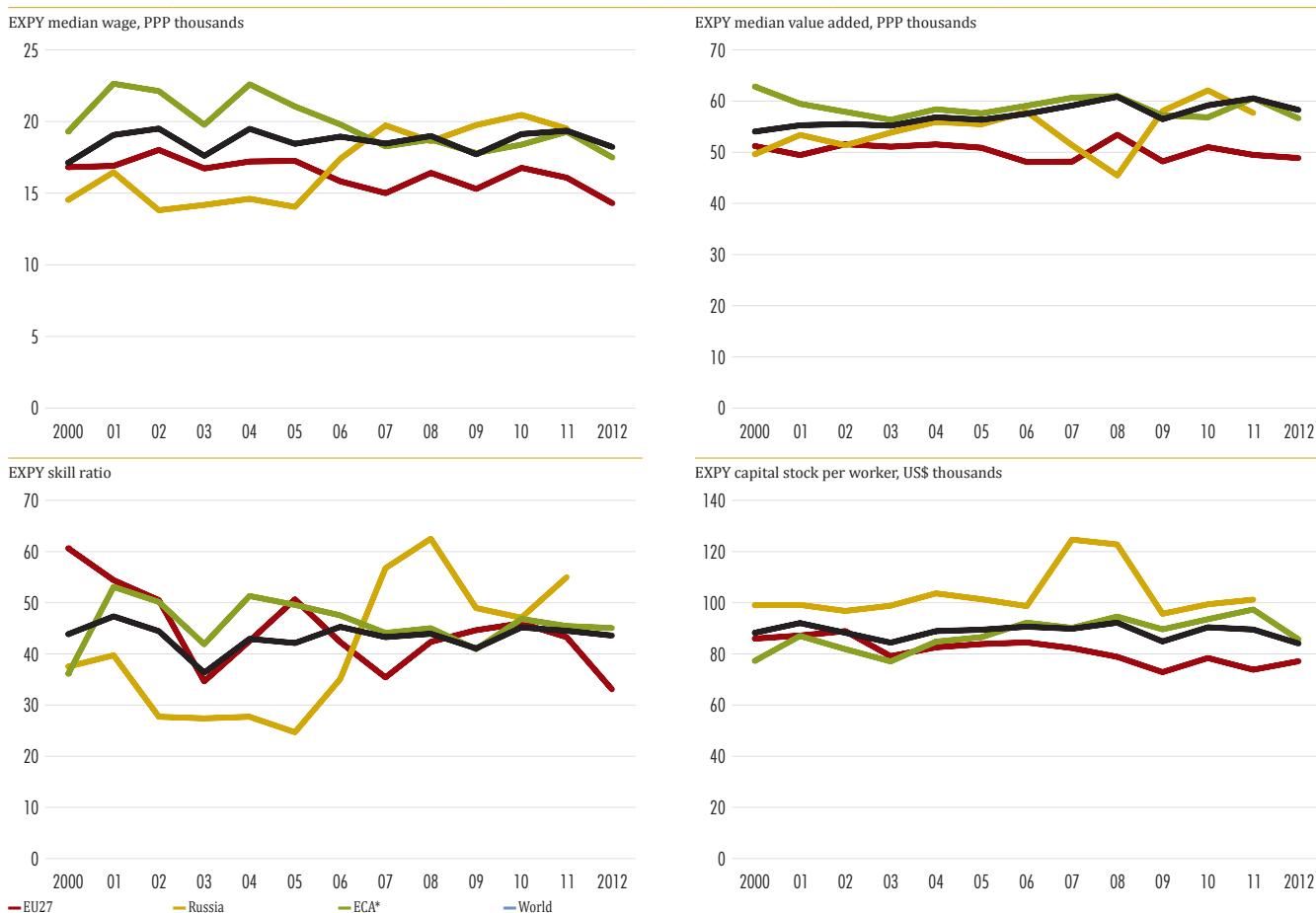
¹⁷ Without access to detailed employment and wage data, we cannot derive precise measures of the labor-market impact of Georgia's export performance. Adapting the Hausmann, Hwang and Rodrick (2007) measure of export sophistication, we develop indirect measures of the labor-related sophistication of Georgia's export basket. EXPYs can be interpreted as the export share-weighted average labor market outcome associated with Georgia's export basket, and are calculated using two-steps. The first associates to each product the global trade-weighted average wage, value-added, skill ratio, or physical capital covering all countries in the world that export the product, denoted PRODY. The second step then weights the PRODYS appearing in Georgia's export basket by the share of each product in Georgia's total exports, denoted EXPY. These resulting EXPYs reflect the global average labor content of goods that appear in Georgia's export basket.

Figure 3.4. Labor Sophistication of Georgia's Exports over Time and by Destination

Source: World Bank Staff Calculations.

Georgia's exports to the EU have become less sophisticated in skills content in the past decade, but exports to ECA have increased in sophistication, though mainly because of growth in wine and processed food exports to ECA. Disaggregating non-mineral exports into the EU27, Russia, and the non-EU- and non-Russia ECA destination markets in Figure 3.5 shows a minor decline in median wage and value-added content of exports destined to EU27 from 2007 onward, and a more marked decline in terms of physical capital content, contrary to the trend for non-Russia ECA. ECA in particular absorbed Georgia's wine and processed food exports after the Russian market closed, which embody relatively higher physical content compared to Georgia's other exports. This suggests that diversifying Georgia's export basket by targeting barriers to entry—particularly in terms of the national quality infrastructure, which needs to be upgraded to international standards—toward the EU market is essential to leverage the DCFTA with the EU.

Georgia's export development lags behind regional performers such as Estonia, Poland and Latvia; especially noteworthy is its relative inability to progress up the product chain. Based on the same EXPY indicators of embedded labor sophistication, Figure 3.5 shows that Georgia's non-mineral global exports (the bold solid line) are characterized by relatively higher wages and value-added content compared to Estonia, Poland and Latvia, and these have increased albeit marginally since 2000. On the other hand, the skills and physical capital content of Georgia's exports have slipped to the bottom in relative terms. What is most notable is that Georgia's

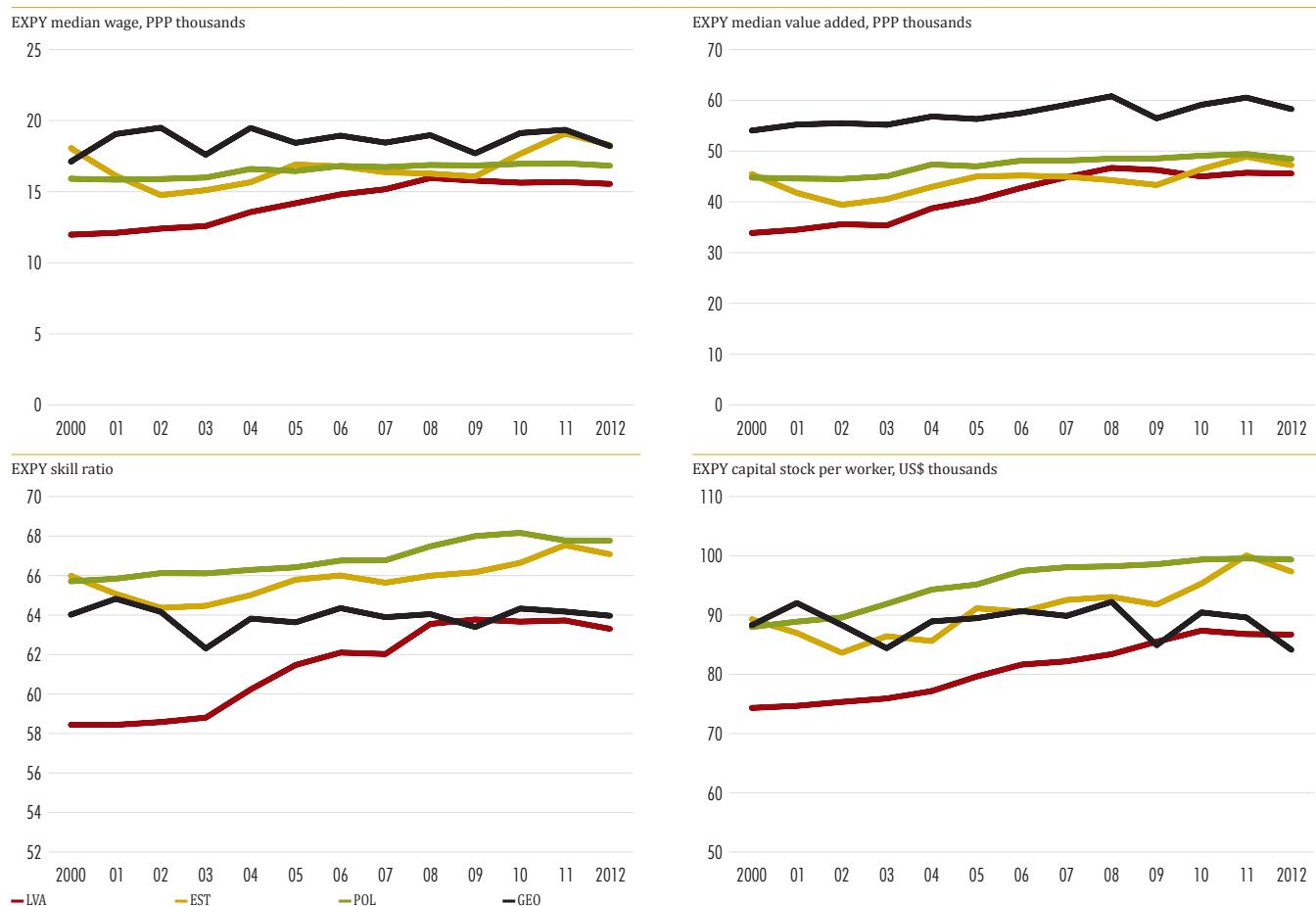
Figure 3.5. EXPY Indicators Showing Labor Content of Georgia's Exports Over Time and by Destination

Source: World Bank Staff Calculations.

Note: Excluding mineral and base metal exports.

trends are relatively subtle and fairly stagnant, whereas the regional performers show more dynamic progress up the product chain. The largest differences emerge with respect to physical capital, with the performing countries increasingly exporting products exported by countries with high capital stocks per worker. Indeed, Georgia's export sectors have not benefited to the same degree from capital inflows over the past decade, especially the very high levels of FDI attracted by Poland and to a lesser extent Estonia.

Georgia's exports to ECA are less sophisticated compared to ECA-destined exports from Estonia, Poland and Latvia reflecting differences in the composition of the export basket. To explore whether the changing composition of Georgian exports to the ECA* market may have implications for labor demand, we compare the labor content of Georgia's ECA*-destined exports with ECA*-destined exports from Estonia, Poland and Latvia. Whereas Georgia is broadly in line with regional competitors with respect to wage and value-added content of exports, its exports lag significantly in terms of skill content (the ratio of skilled workers), and capital content (the capital stock per worker). But the trends since 2000 vis-à-vis skill and physical capital are positive, suggesting that expanding Georgian exports to ECA* has been accompanied by increased labor sophistication in these indicators, differences in the implied skill ratio and capital stock per worker of Georgia's export basket remain significant and are likely to be persistent given that they would require considerable time and resources to close.

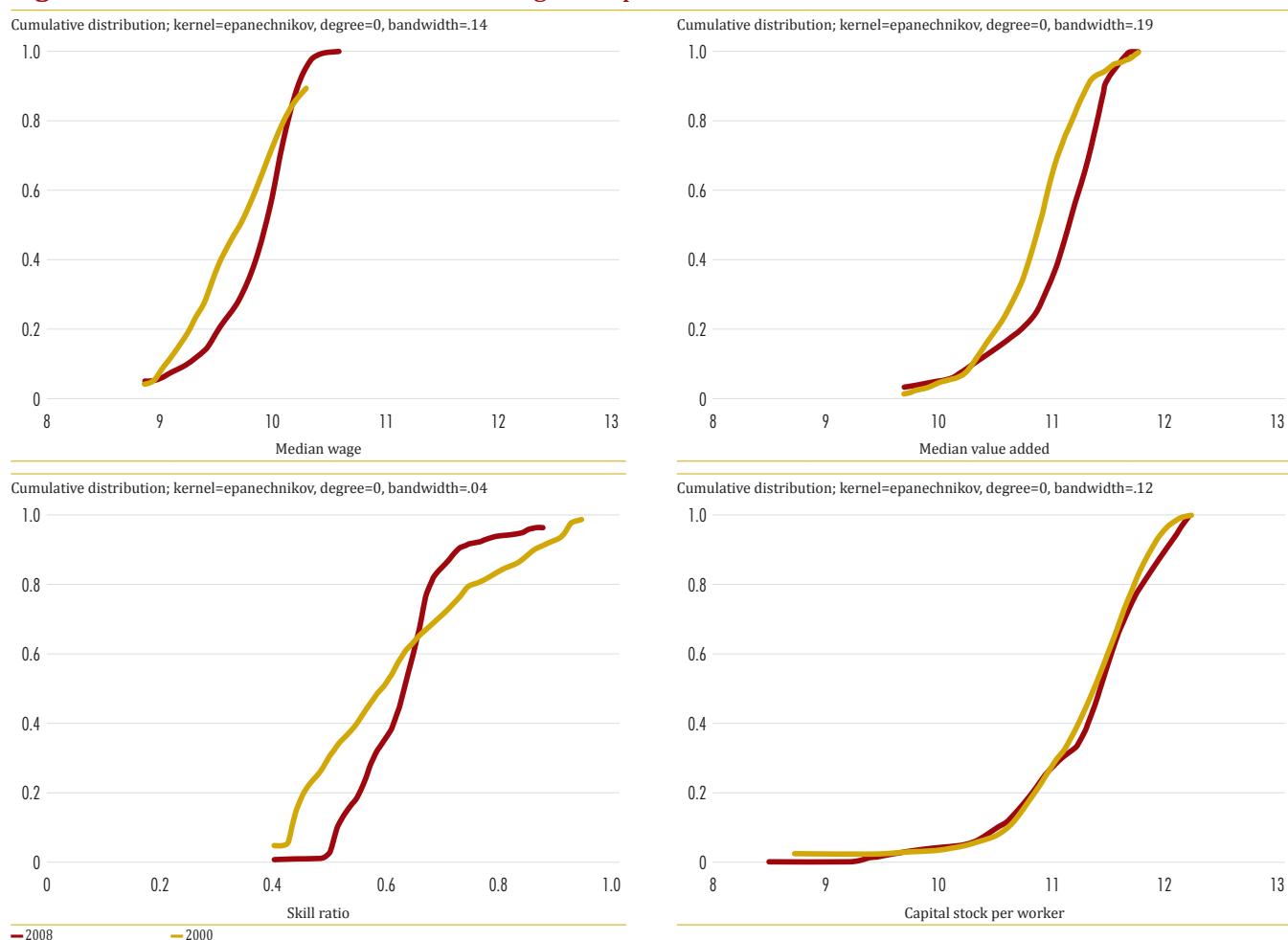
Figure 3.6. Comparing Georgian Exports to Export of Other Emerging Markets in ECA

Source: World Bank Staff Calculations.

Note: Excluding mineral and base metal exports.

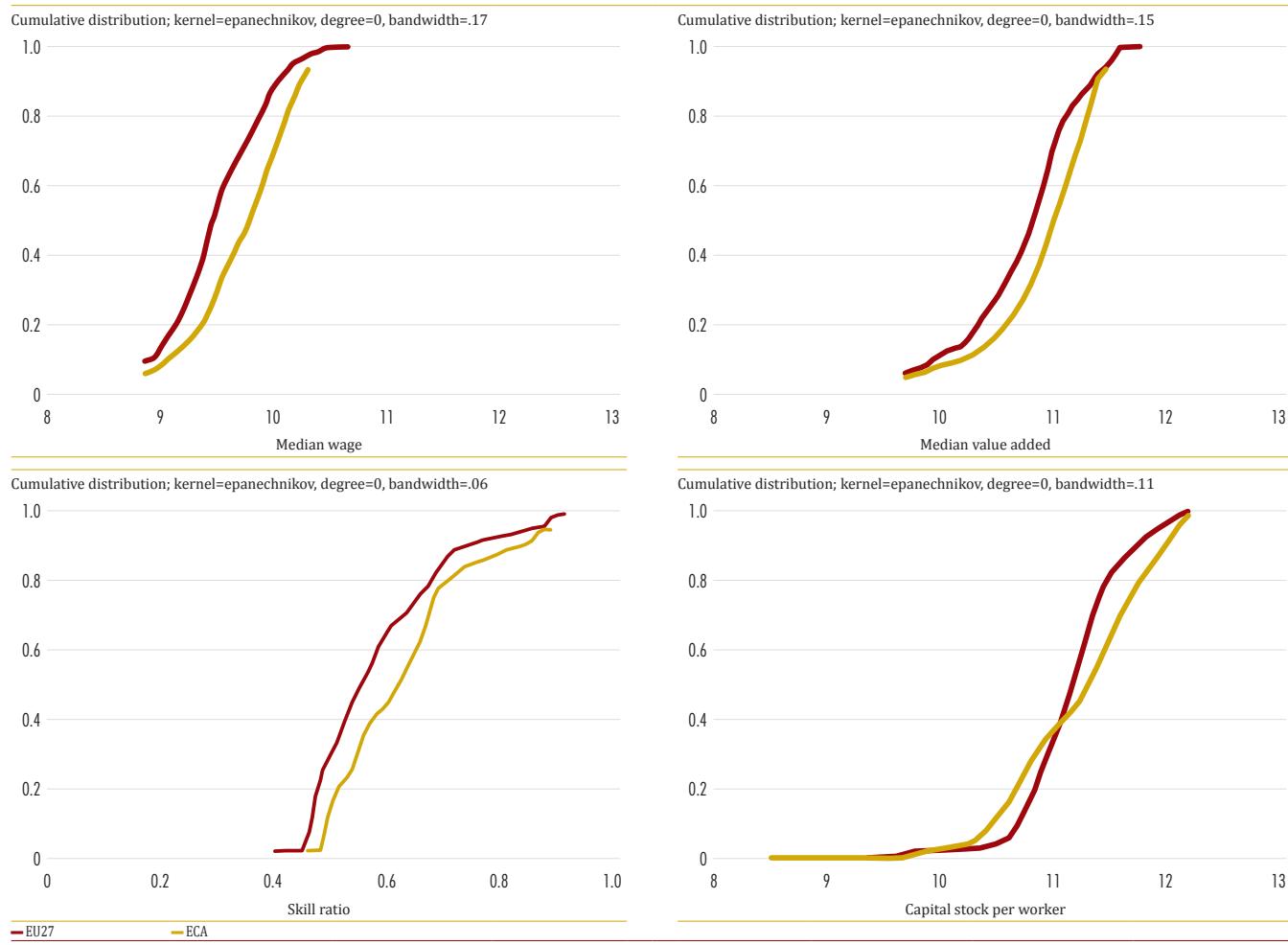
We examine distributions across export product ranges to point to particular products that have the potential to spur Georgian labor demand. Instead of comparing the weighted average values of these export-labor indicators, we can examine the *distribution* of these same indicators across the range of products that Georgia exports. The cumulative distributions plotted show the cumulative share of products (on the vertical axis) at each value of the variable on the horizontal axis: (i) log median wage; (ii) log value-added; (iii) share of employees with a secondary degree; and (iv) log capital stock per worker.

Georgia has increased the labor sophistication of some export products. We compare the cumulative distributions of each labor content indicator from 2000, 2008 and 2012 to consider this question. We observe some increase in labor sophistication across the entire distribution of export products, denoted by a shift to the right between 2000 and 2008, particularly with respect to wages and value-added. The skills content of exports saw an increase in the lower half of the distribution, reflecting an increased concentration of exports associated with a skill ratio around 55–65 percent, but a diminished share of exports with a skills ratio above 80 percent. There has been little change between 2008 and 2012, and therefore we do not present those results.

Figure 3.7. Cumulative Distribution of Georgia's Exports to the World in 2000 and 2008

Different destination markets spur different trends in the labor content of exports. We detect notable differences for Georgian goods exported to the EU27 compared to ECA at the product level. As Figure 3.8 illustrates, exports to ECA have a higher wage, value-added and skills content across all or most of the product distribution curves compared to exports to the EU. In contrast, the difference in the physical capital content is driven by a greater density of exports to ECA* of products at the higher end of the distribution while exports to the EU dominate the lower end. This finding—that the labor sophistication of exports across various indicators to the EU is lower than other regional markets—is consistent with observed trends in other countries including Turkey (with the ECA market) and South Africa (with the Sub-Saharan African market). Enhanced access to the EU market under the Association Agreement, which entails significant institutional reforms and improvements in the national quality infrastructure and enforcement standards, may help reverse this trend.

Georgian manufacturing exports are more concentrated in products with lower skill content, mainly metals and spirits, compared to regional performers, whose export baskets reflect higher shares of more sophisticated manufacturing. Figure 3.8 illustrates that the skill content is more concentrated at the lower end of the distribution in Georgia, whereas exports from Estonia and Poland, and to a lesser extent Latvia,

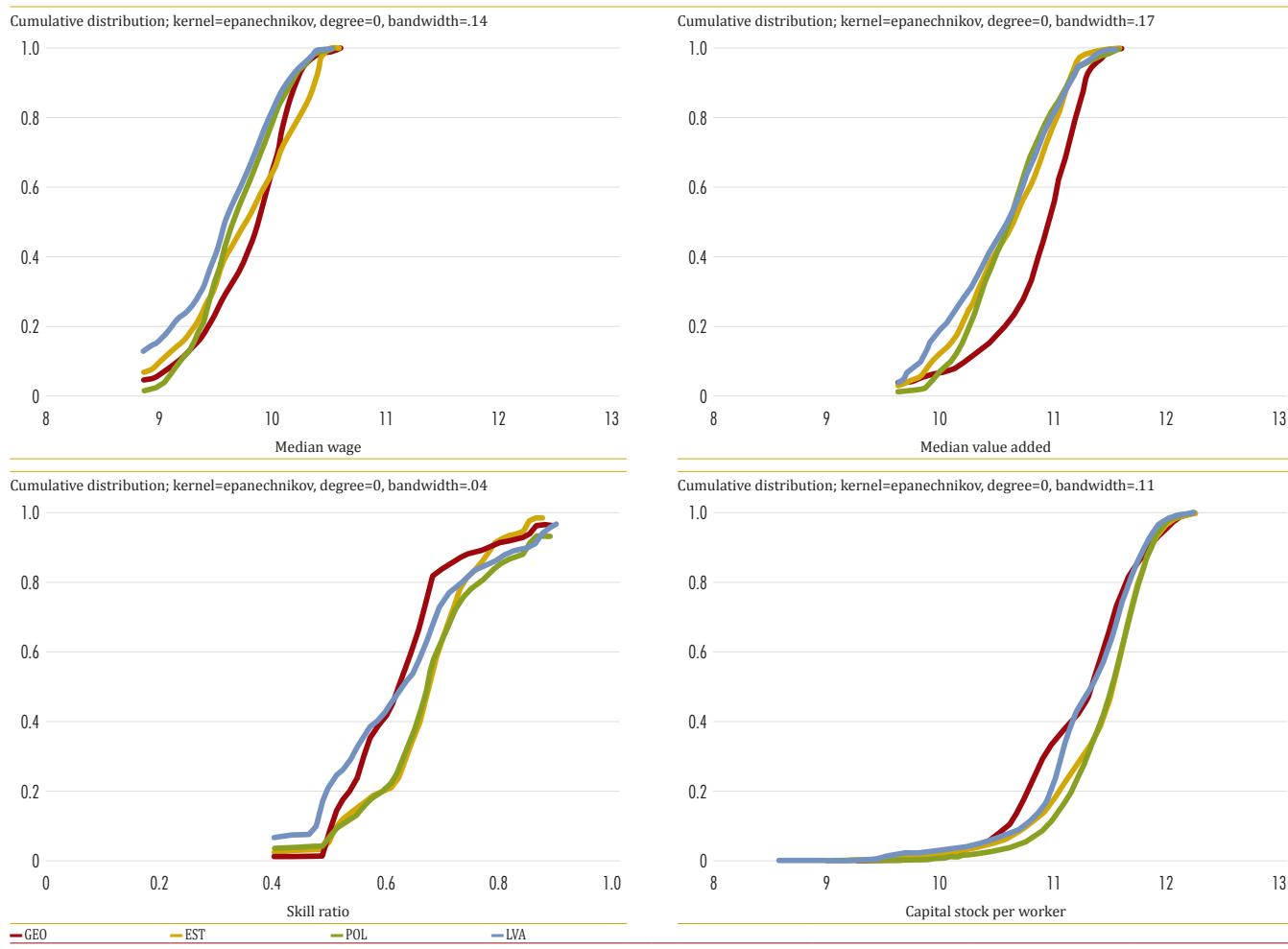
Figure 3.8. Cumulative Distribution of Georgia's Exports to EU27 and ECA in 2012

Source: World Bank Staff Calculations.

Note: Excluding mineral and base metal exports.

embody higher levels of sophistication both in terms of physical capital and skills. This is essentially explained by product heterogeneity and the compositional mix of exports. Georgia's sharper increase in skill level around the point where 50–65 percent of workers have a secondary degree is driven by manufactured base metal products (using iron and steel) and beverages (wine, spirits, non-alcoholic beverages), after which the skill level flattens. In Poland and Estonia, by contrast, the skill level keeps increasing, and the driving products are more sophisticated manufacturing products such as television, radio, telephone line apparatuses, electric motors, generators, transformers, electric distribution control apparatus (in Poland), and television and radio receivers, sound or video recording devices, plastics, and rubbers (in Estonia). Similarly for the embedded average wage for global exports, Estonia and Latvia experience a jump driven by their relatively large share of wood products and furniture manufacturing, as well as apparel exports. For Poland, the jump is explained by furniture manufacturing, plastics and food products.

Figure 3.9. Cumulative Distribution of Georgia's Exports Compared to Exports from Estonia, Poland and Latvia in 2012



C. Strengthening the Link between Exports and Labor Market Outcomes

Exporting firms tend to be larger and more productive compared to non-exporting firms and are largely associated with better labor market outcomes, depending on the ease with which jobs can be created. Exporters are larger and more productive than non-exporting firms¹⁸. There is also evidence that exporters achieve better labor market outcomes than non-exporters, both in terms of employment and wages.¹⁹ Typically the quality of trade-related policy and institutions matters. In countries where it is more difficult to create new jobs, a smaller fraction of firms participate in export markets. And among firms that export, those that find it more

¹⁸ Bernard and Jensen 1995, Bernard and Jensen 1999, Bernard, Jensen, Redding and Schott 2007, Clerides, Lach and Tybout 1998.

¹⁹ Bambrilla, Lederman and Porto 2012.

costly to create new jobs export less intensively (Seker 2010). If exporting versus selling to the domestic market is causally linked to greater job creation and higher wages, then improving trade logistics, facilitating labor mobility or strengthening export promotion policies can strengthen the impact of trade on labor market outcomes.

Georgian exporters create more jobs than firms that do not export. This can be verified more rigorously with our firm-level survey data. Following the methodology of Cebeci, Lederman and Rojas (2013), we test for a causal effect of firms' export growth (measured by the change in a firm's share of exports in total sales) on their labor market outcomes, namely employment level (total and female employment) and average wages (average for total firm employment, and for female employees).²⁰ In addition, we assess whether exporting to different destination markets such as the EU or high-income countries has different impacts on labor-market outcomes.²¹ Within Georgia, raising the export share leads to higher employment. There is a strong causal relationship between exports and job creation in Georgia, with an increase by one percentage point in the share of sales that are exported causes employment levels to increase by 0.30 percent. The impact on wages is much stronger though less reliably predictable.

The positive impact on employment of overall exports appears to be driven by males entering and replacing females, as female employment is lower in exporting firms. A one percentage point increase in the share of sales that are exported causes female employment levels to decrease by 0.19 percent. What is driving this shift, however, is unclear. While the increasing wages may be a reflection of greater skilled versus unskilled employment, the labor force with a secondary education in 2010 is similar between females and males (58.9 percent and 61.3 percent, respectively).

Destination matters for female employment in the export sectors. Exporting to the EU and other high-income countries is correlated with higher female employment levels, possibly because of the rapid growth in recent years of agriculture and services based exports to this market²². Exports to the EU that are concentrated in mineral products and chemicals, two sectors that are capital intensive, do not generate substantive labor-market opportunities for women. Mining and quarrying accounted for only 1 percent of total employment in 2011 and 89 percent of those workers were male. Female employment is instead concentrated in agriculture (60 of female employment) and services (36 percent). These sectors that have experienced increasing exports shares—albeit from a low base—are likely behind the positive results in terms of female employment. Agriculture exports in particular witnessed strong growth to the EU market over the last decade.

Even as Georgia implements policies to support firm productivity and facilitate trade, the impact of growing exports on labor market outcomes will depend on how resources—including workers—move to expanding sectors. Trade patterns and trade policies affect labor outcomes through various channels, especially relative prices, changes in which call for adjustments in consumption and production, and therefore in the demand

²⁰ Whereas an OLS regression can identify statistically significant correlations between changes in the structure of firms' sales and employment and wage growth, we employ an instrumental variables approach to identify causal relationships. We use exogenous fluctuations in exchange rates combined with firms' initial exposure to various markets as instrumental variables (see Cebeci, Lederman and Rojas 2013, and Hollweg and Ruppert Bulmer 2014).

²¹ Because a panel dimension is necessary to conduct the analysis of changes in export shares and changes in labor market outcomes, the selection of firms was limited to those observed in the data across multiple years. We use the National Statistics Office of Georgia (GEOSTAT) Statistics Survey of Enterprises for 2007–11.

²² We test to see if different destination markets have different employment effects and consider the EU, ECA* and Russia, stratifying destinations by income level, namely high-, upper-middle, lower-middle and low-income countries.

for labor and wages. An important transmission channel through which trade policies can affect labor outcomes is through relative prices. Trading incentives are guided by relative prices of domestic versus foreign production, and when a trade parameter changes—such as through a tariff change or a broader persistent price shock in international markets—the change is transmitted to the relative price of affected products. In theory, producers and consumers respond to these new prices by altering their production and consumption of these goods, which in turn affects the demand for labor in the production of these goods. In the case of an increase in labor demand, workers will respond by increasing their labor supply to that sector, drawing labor away from other sectors.

In practice labor adjusts slowly to changing incentives. Whereas we typically assume that markets clear instantaneously—that is, that supply adjusts to price signals (i.e., demand), in reality, labor supply does not adjust immediately. Changing jobs is costly. These costs stem from various sources, and vary across individuals and industries. Labor mobility costs might include periods of unemployment and job search, re-training for a new sector or technology, geographical relocation, or family ties that increase the cost of moving. Evidence from Mexico indicates that non-wage factors are more important than wages in determining job transitions, and 86 percent of voluntary job exits are in fact driven by changes in family circumstances such as marriage or family care (Kaplan, Lederman and Robertson 2013).

When labor mobility costs are large, workers delay or avoid adjustment, with consequences for productivity growth and job creation. Mobility costs not only slow the pace of adjustment, but also reduce the degree of labor reallocation, which in turn affects equilibrium wages. In the event of costly labor reallocation across industries and employers, the gains from trade might be reduced. Idle labor or labor stuck in lower productivity firms and industries implies lost incomes and diminished gains to growth. For policymakers considering trade and/or labor policy changes, it is important to understand the relative magnitudes of “labor-mobility costs”, or the costs faced by workers when searching for alternative employment in response to changing labor demand and relative wages.

The Georgian labor market has high mobility costs, not atypical of countries where agriculture is the largest employer.²³ We estimate transition costs across sectors for all workers and for differentially skilled workers using quarterly data from the 2009 and 2011 household surveys. Table 3.2 shows the transition matrix for Georgian workers for 2011. Each cell contains the transition statistic for the average share of workers transitioning from each origin sector (in each row) to all other destination sectors (in each column). The cells on the diagonal indicate the shares remaining in its current work/sector status; these “stayers” represent the largest shares. These transition statistics give a sense of the fluidity of the Georgian labor market, even during a relatively short timeframe. Take the unemployed, for example. Sixty-two percent of those unemployed at the beginning of the period remained unemployed, while 15 percent exited the labor force, 11 percent entered the agriculture or other primary sectors, and the remaining 13 percent found employment in various other sectors. Among those outside the labor force, 11 percent entered into agricultural and mining employment, providing additional evidence that agriculture acts as the residual or “last resort” sector, absorbing workers unable to find alternative employment. We observe the largest number of transitions out of construction work, a sector typically characterized by significant demand-driven volatility. Public sector service jobs, by contrast, have the lowest share of exits, suggesting that these jobs

²³ Larger mobility costs would lead to higher wage differentials between sectors without corresponding changes in labor allocations, with the converse true if mobility costs are small. The framework is based on an emerging literature that relies on structural models of sectoral employment choices with costly labor adjustment (see, for example, Artuç, Chaudhuri, and McLaren 2010). The total cost is interpreted as the cost a worker would have to incur to move between sectors for a given wage differential.

are highly desirable, and the lowest share of entry from other sectors, suggesting that these jobs are difficult to obtain.

Table 3.2. Worker Transitions Across Sectors and Into and Out of Labor Force Status in 2011

	Unemployed	Out of Labor Force	Agriculture, Hunting, Forestry, Fishing, Mining and Quarrying	Manufacturing	Construction	Public Services Jobs	Private Services Jobs
Unemployed	62	15	11	2	3	2	6
Out of labor force	9	77	11	1	1	1	2
Primary*	3	6	87	1	1	1	2
Manufacturing	5	2	7	75	3	1	7
Construction	13	3	13	3	60	2	6
Public services jobs	2	1	3	0	0	89	6
Private services jobs	5	3	5	1	1	4	81

Source: Authors' estimates based on the Georgia Integrated Household Surveys 2009 and 2011.

Note: Includes agriculture, hunting, forestry, fishing, mining & quarrying.

Combining the transition data with the observed wage gaps between sectors, we are able to estimate the labor mobility costs as a ratio of the annual average sectoral wage (Table 3.3). We observe the following interesting trends:

- The agriculture sector is the least costly sector to enter for all groups, and particularly for the unskilled. Entering workers incur a cost equivalent to 2.6 times the annual average agriculture sector wage, and unskilled workers incur cost equivalent to 2.4 times the annual average sector wage.
- Construction jobs and service jobs in the private sector represent the next most accessible sectors following agriculture.
- Mobility costs increased slightly between 2009 and 2011 (with the exception of the agriculture sector).
- Public sector service jobs have the highest mobility costs, especially among unskilled workers, and this is consistent with the very low observed turnover in public sector jobs.
- Entering manufacturing employment is relatively costly, for both skilled and unskilled workers. This result suggests a certain level of sector-specific knowledge is needed to access manufacturing jobs, in contrast to agriculture and to a lesser extent construction and private services. The estimated labor mobility cost for finding a manufacturing sector job was equivalent to 4.65 times the average manufacturing wage in 2011, up from 4.35 in 2009. The increased cost was even larger for unskilled workers, reaching 5.23 times the annual average sector wage. Note that the average sector wage is used as the denominator; for unskilled workers with relatively lower wages, the mobility cost represents an even larger ratio of the average unskilled wage.

- Leaving employment either by becoming unemployed or exiting the labor force involves the lowest transition cost, which suggests that there may be support systems that facilitate “dropping out.”

Table 3.3. Mobility Costs

As a ratio of the average annual sectoral wage

	2009			2011		
	Total	Unskilled	Skilled	Total	Unskilled	Skilled
Unemployed/Out of labor force	1.94	1.90	2.09	2.10	2.05	2.24
Agriculture, hunting, forestry, fishing, mining and quarrying	2.66	2.40	2.88	2.60	2.39	2.76
Manufacturing	4.35	4.64	4.09	4.65	5.23	4.32
Construction	3.34	3.21	3.50	3.64	3.59	3.73
Public services jobs	4.60	5.08	4.15	4.84	5.02	4.46
Private services jobs	3.14	3.54	2.76	3.27	3.31	3.18

Source: Authors' estimates based on the Georgia Integrated Household Surveys 2009 and 2011, individuals aged 16–64. Unskilled is primary or secondary-level education. Skilled is technical school, college, or secondary-professional; bachelor's degree; higher education or master's degree; or doctor's degree. An annual discount factor of 0.9 is assumed.

Labor mobility costs in Georgia range from 3–5 times the annual average wage and are comparable to other markets dominated by the primary sector.²⁴ The methodology used here is sensitive to the level of disaggregation: the higher the degree of sectoral disaggregation, the fewer the observed transitions and the higher the estimated mobility cost. It is therefore crucial to exercise caution when interpreting the results.²⁵ This type of exercise is most useful for comparing the relative mobility costs across different sectors of the Georgian economy, particularly those most closely affected by trade rather than for international benchmarking. There is however evidence that such high costs are typical of countries with a large share of primary employment and lower share of tertiary education.

The benefits to Georgia of trade-oriented policies, including closer ties with the EU, will depend on the ease and speed with which resources, including labor, can reallocate to higher productivity sectors. As is typical of countries with large shares of employment in agriculture and primary sectors, labor mobility costs are high, especially as a proportion of the unskilled wage. Clearly policy efforts are needed to tackle the constraints that drive these trends if the market access afforded by closer ties with the EU is to have the desired impact on trade and growth. Benefiting from the DCFTA will require that resources—including labor—be able to move to sectors with higher productivity levels and growth potential.

²⁴ Note that the Integrated Household Survey data show quarterly transitions, which we average for each period (i.e., for 2009, and 2011). By using quarterly rather than annual transitions, the resulting lower number of observed transitions biases the mobility costs upward.

²⁵ For example, when we repeat the estimation disaggregating across 14 sectors (instead of the six shown above), the mobility costs for the smaller sectors such as mining, utilities, and financial intermediation are quite high, but the estimates for agriculture, manufacturing and construction remain very close to the estimates reported in Table 3.3.

D. The Skills Context in Georgia

Georgia performs relatively poorly on assessments of the functional literacy of 15-year-olds by these measures. Results from the Programme for International Student Assessment (PISA) 2009+ show that only between 30 and 40 percent of Georgian 15 year-olds score Level 2 or above, which is a threshold usually referred to as functional literacy. Memorization and rote learning are still prevalent. Despite the financing reform and the declining school age population, the education sector continues to be underfunded and faces significant obstacles to attract the best students into the teaching profession. These are serious concerns: research by OECD (2010) has estimated that the impact of improvements on academic quality—as measured by PISA on countries' future economic growth as being significant. According to the study, a 50 points increase in PISA scores (half standard deviation or one year and a quarter of education) is associated with 0.9 percentage points higher growth rates in the long-term (that is, the impact will be felt over a period of 50 years).

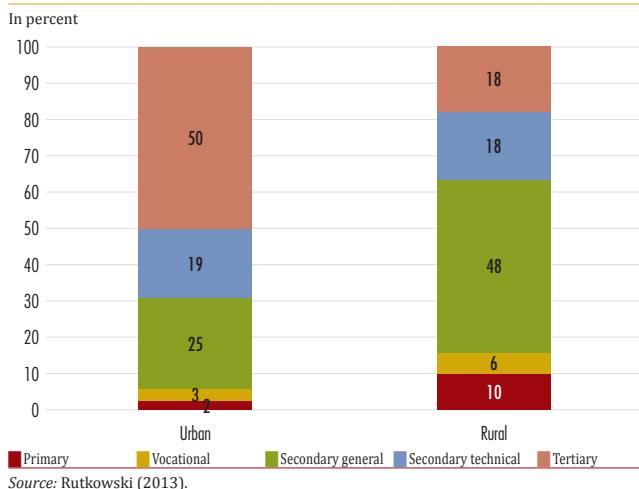
An accumulating body of evidence²⁶ shows that investment in skills at an early stage is an effective policy strategy, and Georgia lags in terms of access and quality. It has been shown that, due to the nature of the skill formation process, early investments are those with the highest rate of return. Both medical and economics literature agree that gaps in both cognitive and non-cognitive skills emerge early in life and that policies to mitigate these gaps later in life have proven very costly. Moreover, these effects seem to be more pronounced for females and disadvantaged groups. Evidence shows that having been enrolled in at least a year of pre-primary education has a positive impact on PISA performance even after controlling for factors including socio-economic status and parental education. However, at 46 percent, the enrollment rate in pre-primary education in Georgia still lags behind comparator countries such as the new member states, with local government capacity to formulate and enforce standards raising doubts about quality. There are also wide gaps in participation between the rich and the poor, and between urban and rural areas.

Skill mismatches are a significant constraint to both productivity growth and labor mobility in Georgia has been identified as a skills mismatch²⁷. The difficulty faced by firms in Georgia both in terms of becoming internationally competitive and progressing along the product chain is mirrored by findings based on an employer survey conducted in Georgia in 2013. World Bank (2013) also reported that skills are perceived as a significant constraint on firm productivity growth.

A STEP survey implemented in Georgia over FY12/13 bears out these findings. The survey was stratified by activity and firm size. Five sectors were covered, namely construction, hospitality, ICT, Other Services, Trade, and Transport. A range of job skills, both cognitive and social/behavioral were surveyed at the high end as well as over the medium to low skill range. The main findings were that while there are many highly educated workers in Georgia, there are relatively few highly skilled jobs and therefore high unemployment, especially among the highly educated. Still, employers often can't find worker with right skills since the education system does not meet

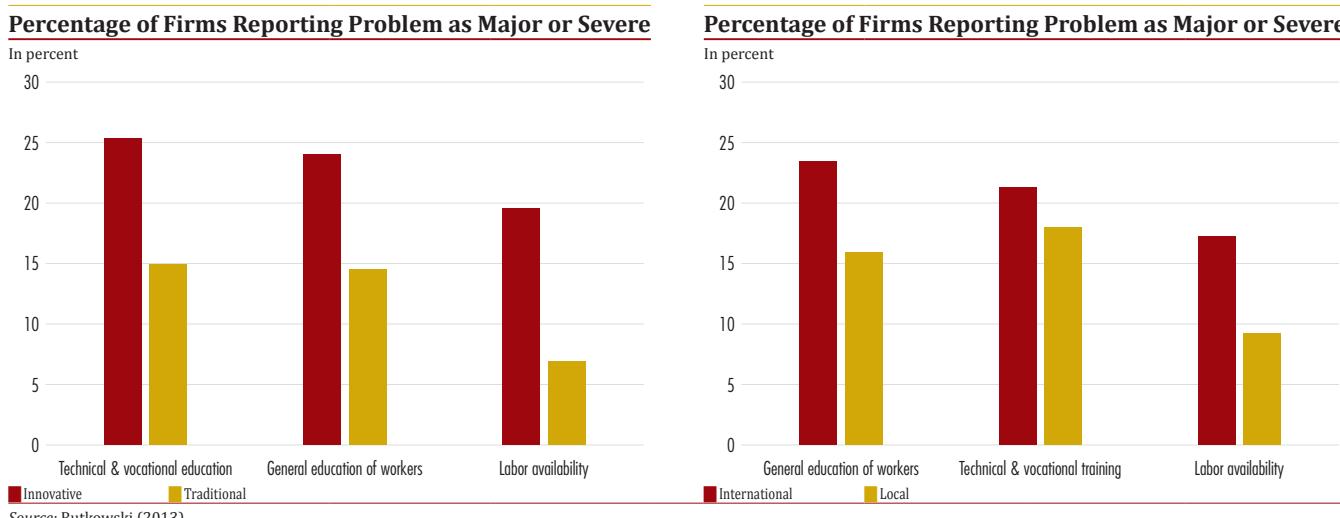
²⁶ See Heckman and Masterov (2007), Heckman (2006), Cunha and Heckman (2006) and Carneiro and Heckman (2003) among others.

²⁷ Georgia has an insufficient number of graduates from science and engineering disciplines. The majority of teaching programs at Georgian universities do not meet international standards, and their graduates are not well prepared to work in high-technology oriented companies. Reform of tertiary teaching and public research is already being targeted by a State Commission on Education and Science Reforms. Recently in collaboration with the U.S. Millennium Challenge Corporation, the Georgian government initiated new policy reforms of the educational and research sectors at public universities and research institutes.

Figure 3.10. Labor Force By Education and Location

employers' needs. Modern firms perceive the skills shortage as being especially severe in spite of the high proportion of educated workers in the country.

At the same time new technologies, globalization, the information revolution, and labor market changes have affected the world economy on an unprecedented scale and will continue to do so in the foreseeable future. The key policy challenge for Georgia therefore is to ensure that its emerging and existing workforces have the skills needed to escape poverty and embrace new opportunities. Currently, there is potential to strengthen the effectiveness of the school system in providing basic skills such as literacy, numeracy and problem-solving skills that are needed

Figure 3.11. Modern Firms are Particularly Affected by Skills Shortage

in almost any job. Georgia's education system lags behind in imparting this basic set of skills (share of functionally illiterate students in PISA is an indicator of poor performance). Moreover, vocational education (levels I-III) starts too early and does not teach general skills that would enable the youth to adapt to changing economic circumstances. Rather, in most cases, VET is focused on specific occupations, which end up tying youth and further increasing labor mobility costs. In addition, school to work links need to be strengthened in both directions: employer incentives and capacity to provide on-the-job training needs to be taken into account when designing a skills development strategy.

Georgia does not yet have a skills development strategy. Global trends relating to increased use of technology has led to a debate emerging around the mismatch between skills supplied by recent graduates and skills demanded in the labor market. In several countries, employers demand a sophisticated set of skills—including socio-emotional and higher-order skills, such as problem-solving—and education systems have not yet adapted

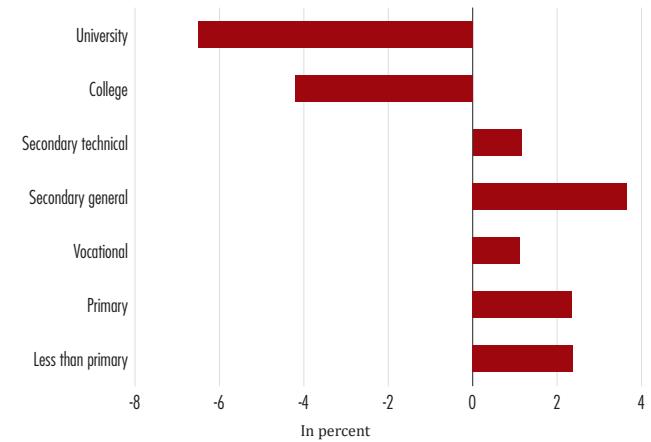
in order to impart these skills to students (Arias et al., 2014). High youth unemployment rates, particularly in Europe, (including among those with advanced degrees and even before the global financial crisis) and the increasing demand for and higher wages of employees with the right skills mix suggest a skills mismatch. Georgia faces a similar challenge.

The skills mismatch in Georgia is consistent with a lower bound “simulated” 15 percent unemployment rate. Even if the economy creates additional jobs so that labor demand (jobs) = labor supply (employment + unemployment) there would still be unemployment due to an educational/skills mismatches. Under certain assumptions explained below, about 15 percent of the unemployed would not find jobs because their educational attainment is lower than that required in the newly created jobs (this is a lower bound estimate). There will be an excess supply (unemployment) of workers with secondary general education, and excess demand (shortage) of workers with university education even assuming away the issue of relevance of college degree or lack thereof. There are four main assumptions: an equilibrium condition is imposed on job growth so that the number of newly created jobs = the number of unemployed and labor demand (jobs) = labor supply (employment + unemployment); the educational structure of newly created jobs is the same as the structure of existing jobs, so the educational/skills structure of employment does not change; there is no mobility between occupational groups, i.e. workers with secondary general education cannot take jobs requiring secondary technical education and workers with college degrees will not take jobs requiring secondary education; and there is no horizontal skills mismatch, i.e. there is no mismatch within educational groups (that might require matching of occupation with specific college degrees).

Various studies pointed to the lack of labor skill as a key obstacle that has impeded the business development in Georgia. More than half of the employees have a university degree or higher (Enterprise Survey 2013) and there is a large pool of unemployed workers with higher education. However, the 2014–15 Global Competitive Index ranked Georgia as 92nd out of 144 countries for “higher education and training”. On one hand, traditional enterprises that engage in low-productivity activities find a lack of specific technical skill in the workforce; on the other hand, the modern enterprises that engage more innovative and high-productivity work complain the lack of high-skilled workers who can adapt to the changing technologies. The 2008 EBRD-World Bank Business Environment and Enterprise Performance Survey show that close to 30 percent of Georgian employers see inadequate workforce skills as a major obstacle to the operation and growth of their firms. Importantly, innovative and growing firms suffer from this skill shortage the most.

The relevance of higher education programs needs to be strengthened. The Government has undertaken several steps towards improving higher education system since 2005. Concerted efforts have also been launched to introduce STEM (Science, Technology and Engineering) education in Georgia through MCC support. Nonetheless, the quality and relevance of higher education programs remains a concern. According to the World Bank’s “Skills

Figure 3.12. Differences between Share in Total Employment and Unemployment by Educational Attainment, 2012



Source: Rutkowski, 2014.

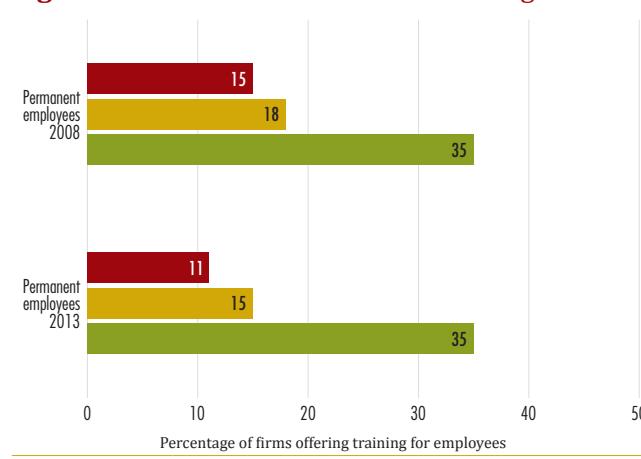
Mismatch and Unemployment Report (2013)", over 50 percent of all unemployed have a secondary school diploma and as many as 40 percent have higher education. Although limited net job creation and scarcity of jobs requiring higher education is an important cause for unemployment, the skills mismatch is a contributing factor (Rutkowski 2008). Students continue to pursue degrees in business, humanities and law instead of sciences and engineering. Lack of career centers, advising centers, and orientation to help choose a career path is a factor here. Regarding the relevance of programs, examples of partnerships between higher education institutions and the private sector are rare.

Recently, policy makers have turned to vocational education as a tool for addressing high unemployment among the youth. This is a valid alternative as it facilitates transition from school to employment in some cases, provided that tracking into vocational streams should not happen too early, i.e. not before students acquire strong generic knowledge. For instance, Poland has delayed tracking of its students by one year and Jakubowski et al. (2010) have shown that the country made significant progress as evidenced by improved PISA results partly due to the reform. Another concern with vocational education is the adaptability of graduates to an ever changing economy. Hanushek et al. (2011) approach this debate from a short vs. long term trade off perspective. They find evidence that while vocational education leads to a smoother transition immediately after school, it may hinder future employability as technical skills become obsolete. Even in Germany, whose vocational education system is considered a model, having general education has been advantageous in the last decades. In ECA, vocational graduates have lower youth unemployment rates but lower employment rates after age 25 and older²⁸.

In Georgia as well, the last few years have seen reforms to the vocational education and training system (VET) though there remains considerable scope for improvement, especially in engagement with the private sector, and strengthening mobility. Reforms include: (i) optimization and consolidation of vocational education institutions; (ii) introduction of a new financing system, which foresees three different types of financing, differentiated vouchers, program budget and targeted programs ; (iii) significant capital investments on new school infrastructure; (iv) the adoption of a National Qualifications Framework; and (v) a whole new strategy (2013–2020) that pledges to put more emphasis on quality of education, transferability of qualifications, elimination of "dead-ends" and counseling to help students find jobs (World Bank, 2014). Despite these actions, quality remains a concern. In addition, the VET track provides very little or no general education. Not only does this create difficulties for students that later decide to pursue higher education, but more generally it also leads to a workforce that will have very little mobility given that only specific occupation is taught.

There are shortages of on-the-job and vocational trainings, which are crucial for workers' adaptability to their jobs. Only 11 percent of the surveyed firms reported to offer formal training in the 2013 Enterprise/BEEPS Survey. The 2014–15 Global Competitiveness Index ranked Georgia at 114th out

Figure 3.13. Provision of Formal Training



²⁸ See Arias et al. (2014), p. 238.

of 144 countries under the “on-the-job training category”. On the availability of research and training services Georgia was ranked as 116th.

Over 90 percent of the respondents to a non-representative survey²⁹ said they would like to be self-employed suggesting Georgians have an entrepreneurial spirit. In fact, the share of self-employed is already high among workers older than 40. A World Bank study suggests measures to promote entrepreneurship and job creation through new, more innovative companies including through; (i) increased access to finance to small and medium enterprises (SMEs); (ii) a simplified the tax system; (iii) facilitation of firm exit and restructuring; and (iv) outreach to raise awareness of the possibility of taking on entrepreneurial activities and opportunities for capacity-building.

E. International Best Practice in Skills Development

A long term vision is a common characteristic of countries that have successful skills development strategies. Policy makers identify a growth strategy and the sectors of the economy more likely to lead the country to the envisioned goal. Afterward, the needs of these sectors—in terms of workforce, financing and institutional framework—are addressed. For that purpose, manpower needs are estimated and schemes to incentivize firms to train their workforce introduced. Also, successful countries have been flexible enough to adjust their strategies to the changing economic circumstances.

In the late 1960s and 1970s, the Government of Singapore set up a program to attract foreign companies and engage them actively in training. This model was pioneered by Tata (India), Phillips (Netherlands) and Rollei (Germany). The training model was based on the German apprenticeship scheme and incentives to the firms included tax free remittances, low interest loans, reasonably priced land, cost-sharing operational costs between firms and government, and right of refusal (in the case of Rollei), potential competitors could only operate in Singapore if Rollei decided not to produce that particular good). Additionally, while firms had priority to hire their centers' graduates, they also needed to train more people than they planned to hire. Since the focus on individual companies would not be enough to address the country's needs, the model evolved to embrace partnerships between Singapore and countries such as Germany, France and Japan. Heavy foreign direct investment followed and led Singapore to develop expertise in innovative industries (Kuruvilla et al., 2002; Kuruvilla and Chua, 2000). Korea relied on a similar strategy of choosing pioneers and helping them meet their needs. The government played the dominant role in planning, financing and regulating training in the 1960s and 1970s. However, the responsibility for service provision was delegated to the private sector. Vocational education and training was at the heart of Korea's strategy. Not only was there demand for technical skills, but it also allowed for people that would otherwise drop out to continue education, i.e. it did not compete with tertiary education. Gradually, vocational education as an end point lost ground to higher education (Ra and Shim, 2009).

In 2005, Ireland called on a group of experts, the Expert Group on Future Skills Needs, to design a strategy for the country to become competitive, innovation-driven, knowledge-based, participative and inclusive

29 See Georgia Rising (2013), World Bank, Washington DC, p. 19. Original source is Natsvlishvili (2011).

economy by 2020. As in East Asia, skills needs were identified and measures to address them proposed. Particular emphasis has been put in ensuring basic skills, such as literacy and numeracy, are imparted to everyone. Low skilled and disadvantaged populations, including immigrants, are targeted under the new strategy. Ireland's strategy is shaped around the identification of individuals' and employers' needs, provision of flexible and responsive training, national media awareness campaign, accreditation/quality assurance system, and adequate funding. To that end, the experts group devised a strategy to increase both employees' and employers' incentives to engage in training. Moreover and very importantly, the push toward skills development is a comprehensive policy, i.e. it spans several government departments to assure coherence (Expert Group on Future Skills Needs, 2007).

In an attempt to address the complaints by the business community that the government was not providing good public education to its population, India has established the National Skill Development Corporation (NSDC) through a public-private partnership. NSDC is a non-profit owned by the private (51 percent) and public sectors (49 percent). However, it is designed and run by the private sector, which has autonomy over its resources. The government has provided seed capital for the program and the NSDC is expected to train 150 million workers by 2022, with focus on over 20 selected sectors of the economy. Among NSDC's activities are funding vocational training initiatives through loans or grants, setting up standards and accreditation systems, student placement mechanisms, identifying and helping in the development of workers' skills³⁰.

Innovative firms already account for a large share of the jobs created world-wide: therefore, the skills demanded by these firms cannot be neglected³¹. Moreover, fostering entrepreneurial activity will translate into more job creation in the future. Söderhamn, a small city in Sweden, offers another form of long term vision: teaching entrepreneurship from an early stage. In the past, the city observed big companies closures, demographic shift towards a shrinking working age population, high unemployment rate and increasing immigration. Local authorities decided to develop around innovation in the service sector in order to face the city's challenges. The first component of the new strategy was the inclusion of entrepreneurship as an integral part of the basic education system from an early stage. This was an overarching task that involved a paradigm shift. In school, children were stimulated to develop their ideas and not to fear failure. Among other activities, students 16–20 years old come up with ideas and develop business plans in "Business Labs" with the help of a Swedish NGO and also participate in summer entrepreneurship programs. Moreover, partnerships between schools and companies were established so that ideas with potential could be taken to the next level. Between 2007 and 2010, the number of student beneficiaries of the NGO program has increased by almost 100 percent and covers not only business students, but also other fields (Högberg, 2012).

Information can play a critical role in mitigating the skills gap as demonstrated by the experience of many countries. In Chile, the Ministry of Education has set up a portal on the internet that contains detailed information about the employability and earnings of graduates. Through a unique ID, data from the tax payments are crossed with the education records. The portal targets prospective tertiary education students and provides them with details of employment rates and earnings by income quintiles, fields of work, and type of institution attended (in

30 See <http://nsdcindia.org/index.aspx>.

31 Georgia's innovative firms demonstrate significantly higher level of performance than non-innovative firms, and this difference is bigger than in the rest of the ECA region. The World Bank Report (Fostering Entrepreneurship in Georgia 2013) shows that significant differences exist in Georgia between firms that innovate and firms that do not. The annual real sales growth of innovative firms in Georgia was twice as high as in ECA10 and was significantly higher than that of Georgian non-innovative firms. Similarly, employment growth rates were significantly higher for innovative firms in Georgia than for innovative firms in ECA10.

some cases the actual institution can be tracked). Moreover, students can see how earnings evolve until 10 years after graduation³². Colombia's Graduados provides information on labor market's supply and demand, earnings, and average time to find the first job³³. Initiatives like these have a great potential to prevent an oversupply of workers in a particular sector and shortages in another. In addition, they promote a more informed discussion about career paths among secondary education students. Established in 1994, Italy's AlmaLaurea is a database of graduates' résumés. Run by a consortium of universities, it gathers information on approximately 80 percent of the country's graduates. Its main objectives are to facilitate and improve access of young people to the labor market and monitor university courses and their quality. The portal provides advice for jobseekers, a large bank of job offers and also information about companies. Prospective students can also learn more about post-graduate programs' characteristics.

As technological and demographic trends leads to the obsolescence of skills that were once important, continuous education (on-the-job, second chance and for the unemployed) is increasingly more important. Many EU countries provide some type—which may vary—of incentive for firms to invest in the human capital of its employees. In the Netherlands, for instance, firms can claim up to 140 percent of their training expenditures as tax deductions. In 2006, the North Rhine-Westphalia state of Germany introduced training vouchers that cover up to 50 percent of the fees. The remaining is funded either by firms or employees and candidates need to consult approved agencies before being granted the incentive. Training funds are also popular. Firms, according to their size, pay a share of their payroll (usually around 1.0 or 1.5 percent) and this fund is used for training of employees. In many cases, firms can be granted deductions based on their workforce development expenditures. In the case of training funds, evidence suggests that sectoral levy schemes are in place. This reduces cross-subsidization across industries and makes employers more likely to actively participate.

State employment agencies can have an important role in helping unemployed find jobs. Not only do these agencies provide a whole host of services and counseling, but they also channel unemployed to skill-enhancing activities. Denmark has a particularly developed system in which the unemployed are divided into different profiles according to factors such as health, length of unemployment, social problems, lack of social competences and motivation. Depending on the profile, the unemployed have to have frequent personal contact with counselors and participate in employment-directed programs. As a result of active labor market policies, Copenhagen has managed to keep unemployment rates low for a country that provides substantial unemployment benefits. The strategic focus on educational training, practical work training and interactions with enterprises has helped keep youth unemployment even lower than the overall unemployment rate (Müller and Behringer, 2012).

Several countries have strived to link academic research to the needs of the employers. In Latin America, countries such as Chile, Uruguay, Brazil and Argentina have had low Research & Development investments (and very low private participation in it). While in some cases Technology Transfer Offices (TTOs) are set up at the university level, many countries have recently organized National TTOs, which facilitate the transfer and adaptation of knowledge from universities and research centers to industries. In ECA, Macedonia is working towards creating its own TTO. These offices can provide technical solutions to firms, help manage intellectual property and even support the creation of start-ups. In the US, some universities have their own TTOs, whose mission is to bridge research and industry and make knowledge available for public use and benefit. Not only do

32 See <http://www.mifuturo.cl/>.

33 See <http://www.graduadoscolombia.edu.co/html/1732/channel.html>.

Box 3.1. More is Needed on Innovation

Fostering new and innovative firms is critical to improve job creation in ECA (World Bank 2014). In the region, about 10–15 percent of the firms—most of them young—account for approximately two thirds of net job creation. Innovation, especially technology adoption and adaptation, is critical for Georgian firms to increase productivity. How does Georgia fare?

The 2014–15 Global Competitiveness Index ranked Georgia's capacity for innovation at the 121th out of 144 countries. The Global Innovation Index ranking, based on elements of the enabling environment for innovation, ranked Georgia at the 72nd in its 2014 report. The country's ranking has not changed much since 2011. Both the research and development (R&D) and capability to adopt or emulate technology were low in Georgia. The Global Competitiveness Index ranked the quality of scientific research institutions and university-industry collaboration in R&D at 119th and 128th respectively. Company spending on R&D is ranked the 126th. According to the 2012 World Bank Entrepreneur Survey, only 7 percent of surveyed entrepreneurs indicated that their firm had introduced a new or substantially improved product or services in the previous three years. More than 90 percent of surveyed firms had no R&D expenditures in the previous five years and did not envision spending on R&D in the next two years. No entrepreneur reported any Georgian products or services new to the world. Universities, technical institutes, R&D firms, and external commercial labs were among the least important sources of knowledge for companies, indicating a lack of innovative activities and industry-relevant research.

The number of Intellectual property filings and the number of patent applications during 2010–12 were lower than the pre-crisis years. Filing of intellectual properties in 2012 was 153 cases, down from 267 in 2009. The number of local patent applications in 2012 was half of the 2009 numbers of applications. In addition, survey results from the enterprise and BEEPS surveys showed that the percentage of firms which developed new products in the past three years has dropped from 35 percent in 2008 to 9 percent in 2013.

Figure 3.14. Fewer Firms Developed New Products

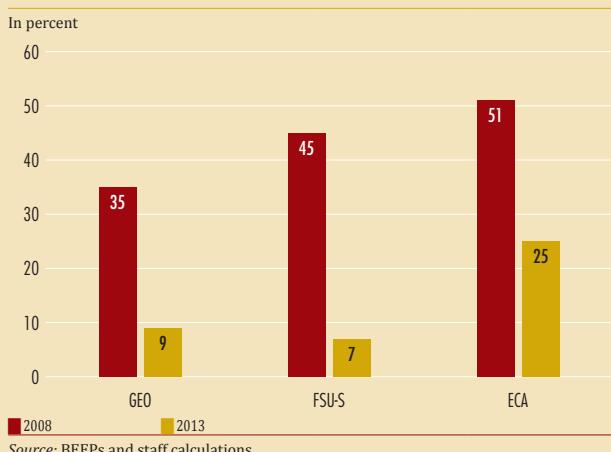
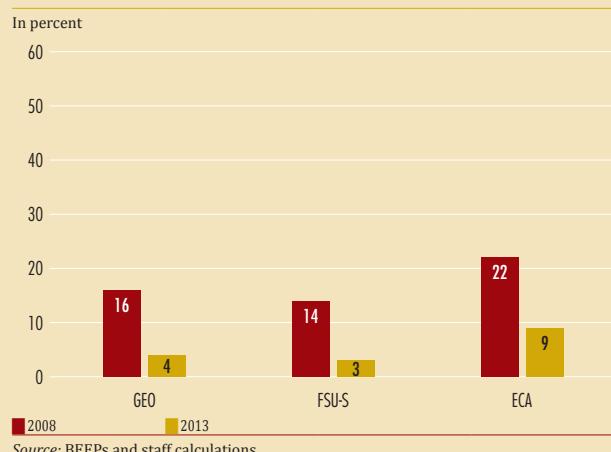


Figure 3.15. Fewer Firms Spent on R&D



Over same period, percentage of firms that spend any funds on R&D in the previous three years dropped from 16 percent to 4 percent.

Most innovation in developing countries is through technology adoption and adaptation, rather than R&D. Technology adoption in Georgia is ranked 106th in the 2013 Global Competitiveness Index. The Enterprise Survey reported that around 8 percent of Georgian firms adopted at least one internationally-recognized quality certification in 2013, low compared to the regional average of 21 percent and the world average of 17 percent. This ratio is also lower than those reported in previous surveys (16 percent in 2008). In addition, although there is a significant presence of FDI in the country, technology transfer is ranked low (101st) by the Global Competitiveness Index. 16 percent of surveyed firms adopted technology licensed from foreign companies, also below the regional average of 19 percent.

According to the 2013 Global Competitive Indicators, Georgia's intensity of local competition, extent of market dominance and effectiveness of anti-monopoly policy were ranked at the 123rd, 119th and 138th out of 148 countries. Higher competition is likely to increase incentives to innovate among both new entrants and incumbents. Moreover the International Property Rights index ranked Georgia at a low 112th out of 130 countries. In particular, the protection of intellectual property rights, patent protection and copyright protection were ranked relatively low at the 107th, the 109th.

these offices help raise funds for research, but they also bring the productive sector closer and more aligned to academia, which in turn, help make higher education more relevant to the needs of the industries.

F. Conclusions and Policy Messages

While a relatively small proportion of firms in Georgia export, these are significantly larger by comparison to firms that do not, better at creating jobs and are also more productive. The number of firms that are export competitive in Georgia is small and declining. However the positive causal relationship between exporting and employment implies that general measures that enhance firms' productivity and capacity to export—whether through better trade infrastructure and logistics, greater availability of trade-related financing and insurance, or policies to increase matching between Georgian producers and potential importers—will create more jobs. And although the evidence suggests that increasing exports actually reduces the relative demand for female labor, exporting firms are larger and employ more women than non-exporters, implying a net gain in job creation for women as well as for men.

There has been limited improvement of the skills content of Georgia's exports, especially compared to regional performers. Improvements in skills and value added sophistication is largely concentrated in goods destined for ECA. The skills content of goods being exported to Europe remains relatively low, reflecting the dominance of base metals and minerals in the structure of exports. Further development of national quality infrastructure according to DCFTA requirements will support higher value added exports to the EU market.

Management capacity, technological upgrades, and staff training could help address this gap. In particular, the skills profile of Georgia's exports has shown less dynamism than that of regional performers such as Poland or Estonia, which have progressed to a higher value added manufactured exports. The structure of exports mirrors that of the labor market and remains largely primary and traditional.

Table 3.4. Main Messages

Findings	Policy Implications
Increasing exports has been beneficial for employment in Georgia; on the demand side of the labor market, firm productivity growth is critical. However improving labor mobility is critical if workers are to reallocate to higher productivity sectors.	Strong emphasis on general education is critical in a world in which technologies come and go at a fast pace since these allow workers to better adapt.
Labor sophistication of exports must improve for Georgia to compete in a difficult external environment. Supporting the quality infrastructure and encouraging innovation will be critical to encourage the development of more sophisticated products or products with more value added.	VET quality strengthened, linked to general education, and ensures that tracking into vocational does not happen too early.
Skills mismatches are a significant constraint on firms and seem to be hindering innovation even though Georgian innovators outperform non-innovators to a greater extent than in the rest of ECA and along multiple dimensions. Development of new sectors with potential for export competitiveness will be as critical as supporting competitiveness of existing sectors and would lead to increased job opportunities for Georgia's citizens.	Firm incentives to invest in training; stronger engagement with private sector on VET and life-long learning. Disseminate detailed information about prospective earnings and employment circumstances of different careers. Introduce instruments of financial assistance to encourage upgrading existing technology and capacity.
	Further develop national quality infrastructure (accreditation, metrology, standardization and conformity assessment) according to DCFTA requirements to enable firms to adhere to international standards and strengthen institutional and technical capacity.
	Provide services to promote exchange of information (fairs, conferences, exhibition, trainings, etc.).
	Promote enterprise innovation and technological adoption and adaptation and gear skills development towards younger more innovative firms.
	Establish/facilitate an environment strong industry-research collaboration to promote innovation.

Reallocating resources to export sectors will be important if Georgia is to strengthen the positive labor outcomes associated with trade and develop the trade opportunities offered by enhanced market access under the Association Agreement with the European Union. Attracting FDI and capital investment in the tradables sectors could help Georgia expand its product offerings up the value chain, which could spur dynamism in the export sector, with positive knock-on effects for employment and wages. So far capital flows have been largely in the non-tradables sectors and FDI has been import rather than export oriented as noted elsewhere in this report. Labor mobility is the key component of the resource churning needed to support the growth of productive sectors and facilitate job creation and output expansion.

Policies that reduce labor mobility costs would reduce distortions affecting labor supply decisions and thus increase labor market flexibility, enabling workers to adjust more quickly to changing market signals. Labor mobility costs are especially high for entry into the manufacturing sector in Georgia, which suggests that there could be a transition period over which policies targeting manufacturing job growth would have a smaller-than-anticipated effect in the absence of concerted policy attention. For example, unmet labor demand

in manufacturing could keep wages relatively high, reducing firms' competitiveness. Policies aimed at reducing this transition period and improving labor mobility over the longer run could be designed as direct targeted compensation (e.g., to finance through cost-sharing relocation or re-training costs, or training subsidies), or could address challenges such as education access and quality, VET, and life-long learning needs. In particular, the Government's ongoing efforts to develop a consolidated education sector strategy (2014–2024) spanning from early childhood education to higher education promoting the notion of life-long learning and quality education for all, provides an excellent venue to address the above challenges . Over time, this would reduce the skills gaps and mismatches that have been consistently identified as constraints on labor mobility and job growth.

CHAPTER 4: LOGISTICS AND TRADE FACILITATION

Georgia has the potential to be a regional transit hub and has committed to increase its footprint in transit cargo. Georgia's oil and gas pipelines, Black Sea ports, well-developed railway, East-West Highway, and airports are playing an increasingly important role in linking East and West³⁴. At the same time, Georgia functions as the vertical North-South transportation link between Russia and Turkey and, via Armenia, to Iran. Georgia has made it a strategic priority to position itself as a transit country. The government has enacted a 10-point action plan to become a regional hub, and moved aggressively to improve the border management environment. Moreover, it allowed private sector participation into the ports sector, while enhancing road infrastructure along the East-West Highway. The railway sector was reformed, and its freight services operate on a commercial basis. Furthermore, the commercial civil aviation sector operates under a completely liberal regime.

Potential transit flows are large when compared to current volumes handled on the Caucasus Transit Corridor (CTC), especially in non-liquid bulk products. While the overall value proposition of the CTC, under current circumstances, might not be able to match other corridor options—particularly the Iranian ports for non-US and EU originated cargo and the Baltic ports for the rest it has high potential in the event of improved cooperation and better integrated systems along the border with Azerbaijan. For cargo destined or originated in Central Asia, only 22 percent of the potential dry bulk transit cargo and 10 percent of the potential containerized transit is currently transported through Georgia. However corridor level planning and facilitation would be critical to realize this potential.

Supply-chain management is in its infancy in Georgia. While Third Party Logistics Services providers exist in Georgia, they do not provide a full range of services as in more mature economies, focusing mainly on transit. A small number of sophisticated companies are vertically integrated to address gaps in service provision in the market. In particular, it would be important to support training and skills upgrading in the logistic and supply chain management sector, directly or indirectly. Another priority is to explore alternative regulatory models for the forwarding sector, conducive to improving quality of service and reducing costs, especially for smaller exporters.

Two important objectives for Georgia are to make the country a regional and logistics hub and to upgrade multimodal infrastructure. An analysis of the transit potential and corridor performance suggests an urgent need for international cooperation and for addressing pending regulatory, institutional and infrastructure gaps. It will be necessary to take a “big picture” view of the sector and ensure that public investment is strategic and fully accounts for synergies between different modes. Appropriate coordinating mechanisms are therefore necessary, especially to facilitate multimodal transport planning. The development of a national transport strategy is ongoing and will help strengthen planning and coordination.

³⁴ See the supplemental note for a stock taking of key transit related infrastructure, including institutional set up and planned investments.

The rest of the chapter is organized as follows. Section A reviews transit potential and corridor performance. Section B looks at gaps in infrastructure and services relating to various transit modes. Section C reviews pending challenges to trade facilitation and Section D concludes and presents key policy messages.

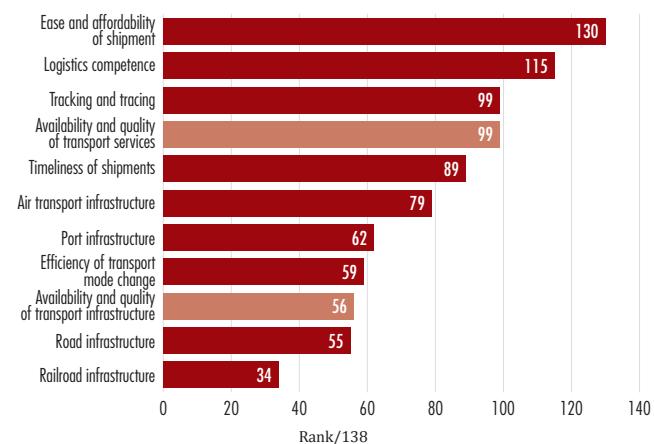
A. Transit Potential and Corridor Performance

Logistics is an important determinant of trading costs worldwide. Reducing the costs of transit and establishing functional and efficient trade corridors are viewed as an important mechanism to facilitate external market access and support firm competitiveness. This typically also entails improved trade and supply chain facilitation as well as investment in infrastructure.

Despite large investments in infrastructure in recent years, Georgia's infrastructure appears to be an important bottleneck to trade. Georgia is ranked 36 out of 138 countries in the 2014 Enabling Trade Index (ETI)³⁵, and 13th for market access, 35th in border administration, 71st for infrastructure, and 48th for operating environment. High cost or delays caused by domestic transportation and international transportation rank as the seventh and eighth most problematic factors for trade. When breaking down the infrastructure index, the availability and quality of transport infrastructure is ranked much higher (56th) than transport services (99th), with a particularly low ranking for ease and affordability of shipments and logistics (Figure 4.1).

Georgia has therefore followed a very dynamic policy to develop its transport sector over the last eight years. This policy is centered on maximizing private sector involvement in management and investment in ports and airports, and more strategic prioritization of government sector investments, including the East-West Highway transit corridor and rural roads. Transport services have been liberalized in the railway sector and Georgian Railways operates as a semi-autonomous entity (owned by the State directly and indirectly through a Joint Stock Company).

Figure 4.1. The Enabling Trade Index 2014—Georgia's Infrastructure Ranking



Source: World Economic Forum (2014).

Note: The Availability and Quality of Transport Services pillar consists of six indicators: ease of and affordability of shipment, logistics competence, tracking and tracing ability, timeliness of shipments in reaching destination, postal services efficiency, and efficiency of transport mode change. The Availability and Quality of Transport Infrastructure pillar consists of seven indicators: available international airline seat km/week, quality of air transport, railroad, ports infrastructure, the liner shipping connectivity index, percentage of paved roads, and quality of roads.

³⁵ In 2008 the World Economic Forum launched the Global Enabling Trade Report which is dedicated to measuring and analyzing the factors enabling trade in national economies around the world. It ranks nations according to factors facilitating the free flow of goods across national borders and to destination. The dataset includes both hard data and survey data from the World Economic Forum's Executive Opinion Survey. The index is structured to cover four major issue areas: (i) market access; (ii) border administration; (iii) transport and communications infrastructure; and (iv) the business environment.

Transit Potential

Located at the crossroads of Europe and Central Asia, Georgia is a transit country connecting several important economic regions with a total population in excess of 800 million people. These include the EU (507 million), the Commonwealth of Independent States (CIS) (277 million), Turkey (76 million) and the Caucasus Region (17 million). The Caucasus Transit Corridor (CTC) is a key transit route between Western Europe and Central Asia for the transportation of oil and gas as well as dry cargo. CTC is part of the international and regional corridor TRACECA; an alternative to the north corridor running through the Russian Federation and Belarus, and the southern corridor running through Turkey and Iran, since the latter cannot handle cargo originated in Europe and United States. By mode of transport, transit represents approximately 60 percent of total tonnages hauled by road, 75 percent of Georgian Railways freight throughput, and almost 80 percent of the volume handled by Georgian ports.

Developing trade and transit potential is critical to Georgia's development. With less than 4 million inhabitants, Georgia's domestic market is much smaller than that of its geographical neighbors. Turkey, Azerbaijan, Kazakhstan and Turkmenistan altogether represent a market twenty times larger in population, with an average purchasing power two to three times higher than Georgia's. It is not difficult to understand then, why trade and transit are such key ingredients for Georgia's development plans. Hinging on its central geographical position, the country can capture some of the trade flows moving West to East, and vice versa, expanding its participation in international value chains with the provision of logistics services. This might include transportation, warehousing, forwarding and even value-added services related to supply chain management.

Table 4.1. Transit Potential and Composition of Transit Traffic by Product and Transport Mode

	Estimated Transit Potential (GNIA, 2013)	Composition of Transit Traffic via Georgia (USAID, 2011)
Overall	Estimated total addressable cargo flows add up to 126 million tons per year. Approximately 55 percent comes from exports from Central Asia to Europe (including Eastern Europe, Balkans and Turkey) and the Rest of the World (excludes Asia and Middle East); and 28 percent correspond to exports from the Caucasus to Europe and the Rest of the World.	Based on an analysis of the total flows of transit (2009–10), the top 30 products in transit accounted for 16 million tons in average. About 55 percent corresponds to oil, oil products and coal. Other relevant products that transit through Georgia are meats and meat products ; ethyl alcohol; spirits; construction materials, tractors and construction equipment; sugar; malt extract/components for beer; tropical fruits; apricots, cherries, peaches and sugar. The main origin and destination countries of transit traffic are Kazakhstan, Azerbaijan, Turkey, and Turkmenistan.
Liquid cargo	Estimated liquid cargo addressable transit flows add up to 100 million tons per year. Approximately 50 percent of this volume comes from exports from Central Asia to Europe; and 20 percent correspond to exports from the Caucasus to Europe	Excluding pipelines, approx. 60 percent of non-crude petroleum and non-crude petroleum oils are transported by rail and the rest by road. Meanwhile, 90 percent of the crude petroleum and crude oils are carried by rail. Conversely, mineral fuels seemingly use both rail and road in equal proportions.

Table 4.1. Transit Potential and Composition of Transit Traffic by Product and Transport Mode

	Estimated Transit Potential (GNIA, 2013)	Composition of Transit Traffic via Georgia (USAID, 2011)
Dry cargo (bulk)	Estimated dry bulk cargo addressable transit flows represent up to 17 million yearly tons. Approximately 28 percent comes from exports from Central Asia to the Rest of the World (ROW) and 25 percent comes from exports from Central Asia to Europe	The majority of the sugar, chemicals, ceramic products and fats in transit are transported by truck (it is not possible to distinguish if these are carried in containers or bulk trucks). Same situation applies for break bulk cargo, such as machinery.
Containerized	Estimated containerized cargo addressable transit flows add up to 8.5 million tons. Approximately 35 percent comes from exports from the Rest of the World (ROW) to the Caucasus and Central Asia and 17 percent from European exports to Central Asia	The most important transactions for one-to-one transport to CIS countries were: Salt exports from Turkey to Azerbaijan by rail (114 thou. tons) by rail or truck to Armenia (24 thou. tons); Soap exports from Turkey to Azerbaijan by truck (100 thou. tons); Ceramic products from China to Armenia (27 thou. tons) and meat from the US to Armenia, Azerbaijan and Turkmenistan by truck (38 thou. tons)

Source: World Bank.

Note: GNIA = Georgia National Investment Agency.

Georgia's participation in potential transit flows is still relatively low, especially for non-liquid transit cargo originated or bound for Central Asia. Some market studies have estimated the potential transit traffic that Georgia could attract, based on actual trade volumes flowing across regions located either side of the Caucasus³⁶. Total addressable flows, which indicate transit potential, are estimated in 125 million yearly tons, of which 80 percent belongs to liquid cargo (overwhelmingly West-bound movements), 13 percent to dry bulk cargo, and 7 percent to containerized cargo. For cargo destined or originated in Central Asia, only 22 percent of the potential dry bulk transit cargo and 10 percent of the potential containerized transit is currently transported through Georgia. Meanwhile, between 60 to 82 percent of the potential dry bulk and containerized transit flows from and to the Caucasus actually choose Georgia as a transit country.

Table 4.2. Non-Liquid Bulk Cargo: Estimated Transit Potential and Actual Transit via Georgia

Million tons	Origin or Destination of Cargo: Caucasus			Origin or Destination of Cargo: Central Asia		
	Potential Transit	Actual Transit	Share (Percent)	Potential Transit	Actual Transit	Share (Percent)
Dry-bulk	6	3.6	60	12	2.6	22
Container	2.8	2.3	82	3.9	0.4	10
Total	8.8	5.9	67	15.9	3	19

Source: World Bank based on Georgia's National Investment Agency (GNIA); based on years 2010/2011. Total also includes as origin or destination of cargo regions such as Europe, China and the Rest of the World.

The choice of transport mode for some representative products that transit through Georgia also varies substantially. A more detailed view based on transaction-level data of non-liquid transit cargo moving across the country³⁷ suggests that:

36 GNIA (2013). It should be noted that the methodology used is not readily available in the publication.

37 Based on raw data of top 30 most relevant transit transactions, USAID (2012).

- i. The largest transactions involving import of meat products from the US to the Caucasus (and beyond) rely intensively on road transport. Refrigerated transport by rail through Georgia was identified as not viable by logistics operators due to operational constraints.
- ii. Complex machinery (including heavy lift or out-of-gauge cargo) is typically hauled by road. Amongst other considerations, weight and dimension restrictions seemingly affect the use of the railway for this segment.
- iii. The use of the railway for transporting products such as sugar and ceramic products is relatively high. High-density low-time sensitive products benefit the most from rail freight economics, especially for longer distances. A deeper analysis of transit products—along with a qualitative understanding of each supply chain—would be beneficial to gauge the potential for transport mode diversion (road to rail) in some specific niches.

Corridor Benchmarking

Corridor choice involves a set of sequential and parallel decisions made to move consignments from origin to destination, based on an understanding between the cargo owners and freight forwarders that carry an obligation of results to its clients. The final choice is made under uncertainty, based on perceived tradeoffs—mostly between costs and the risk of delays in delivery times. The two main competing corridors of the Caucasus Transit Corridor (CTC) to serve Central Asia are: (i) the Southern Corridor (via Iran); and (ii) the Northern Corridor via the Baltic ports, Russia and Ukraine. A third one, alternative, could be drawn from the Russian ports in the Black Sea, all the way to Central Asia. As a way of enacting some of the options that the supply chain principal has at its disposal when choosing the corridor, a schematic comparison of the main features of the corridors was made in terms of costs and transit time.

Containerized Cargo

Transit to/from Caucasus Countries

Based on a comparison of competing corridors for a hypothetical containerized export from China to Baku, Azerbaijan, three different options were formulated: (i) using the CTC via Poti port in Georgia; (ii) using the Southern Corridor through Bandar Abbas port in Iran, and; (iii) via Istanbul port and inland road transit through Georgia. Judging by the presented evidence, the costs and transit times are the lowest via Bandar Abbas to Baku. Poti represents a second best in terms of cost—but not necessarily in transit times—and Istanbul comes third as far as costs are concerned.

However, shippers and consignees not only consider monetary costs and times when choosing among competing corridors. Routing via Bandar Abbas might be the preferred route to minimize costs; although presents diminished visibility, difficulties in securing road transportation during the summer, and less predictable border crossing times. Meanwhile, Istanbul seems to have built a stronger proposition in terms of cargo visibility and reliability, mainly from better road freight services, more predictable border crossing times through Georgia, lower likelihood of unexpected delays at Turkish ports, and enhanced flexibility in denser shipping services from

Asia. On the other hand, Poti might offer an intermediate alternative in terms of cost and reliability, considering its developed inland transport services and predictable border crossing times—except for weather related port delays that might occur during the last and first quarter of the year and informal payments on the Azeri side.

Transit to/from Central Asia

The scenario presented above compares three corridors (CTC, Novorssysk/Russia and through Baltic countries) and three different origin points to Kazakhstan, highlighting the importance of more integrated border and transit management along the CTC. The three origin points are one US port (East Coast, Baltimore), one major Far East hub port (Shanghai), and the largest maritime gateway in the Mediterranean (Valencia, Spain). There is not much difference in cost between the Baltic ports option and the CTC. Nonetheless, the volatility in shipping costs though Baku, and even more importantly, the lack of predictability in transit times (e.g. delays in Caspian ferry services) represent the biggest hiccup to position CTC as the preferred corridor, especially for more time-sensitive shipments. In the case of the Baltic ports, block train operations offer a single tariff between Klaipeda and Almaty/Dostyk—including all handling charges and costs associated to border clearance. The latter are seemingly expedited en route to ensure that transit times do not exceed eight days. Conversely, block train services between Poti and Baku have not passed the trial stage.

Break Bulk Cargo

Georgia sits next to one of the largest project logistics markets in the World, mostly heavy lift and out-of-gauge cargo bound for the Caspian oil industry. Yet, Georgia's proposition as a transit country in this segment faces stiff competition from other corridors. Characteristic of the heavy lift and out-of-gauge segment is the need for customized solutions (the opposite of standardization, as in the case of container shipping). This usually involves complex procedures and special handling and means of transport. In the case of heavy lift cargo from China and East Asia to Eastern Azerbaijan and Central Asia, the waterway system of the Volga-Don seems to be the preferred choice of heavy lift cargo for Azerbaijan and the Caspian, Kazakhstan and Turkmenistan. This is due to shortened waiting times to cross the Caspian, and lower shipping rates to Derince port (Turkey) as compared to Black Sea ports and Bandar Abbas. The only hiccup of the Volga river system route is the limits on vessel size and icing conditions during the winter.

The competitiveness of CTC corridor in this segment is also very much dependent on costs set on the Azeri side—and out of Georgia's control. Overall pricing increases significantly due to transshipment costs from railway to truck and distribution for final delivery within Azerbaijan. As mentioned, a single negotiated rail tariff is not in place between Georgian Railways and Azerbaijan Railways, and hence block trains are not functional from a commercial standpoint between Poti and Baku. Significant delays and reliability issues arise due to the Caspian shipping service providers (CASPAR) ferries availability and alleged 'sudden' variations in costs. Hence, Bandar Abbas might be the preferred route for Armenia (year-round), or for the rest of the Caucasus and Central Asia, during the winter season—except for cargo originated in the US and Europe. In that respect, Georgia might be a more competitive proposition for certain trade lanes and months of the year.

Corridor Development

Georgia's government has launched a 10-point action plan to position the country as a logistics hub in the region. In addition to the 'soft' reforms that improved the business climate, reduced red tape for trade and decreased clearance times at the border, the country has invested significant resources to modernize its transport infrastructure, as is the case of the East-West Highway. As part of the corridor linking Central Asia with Europe, a significant amount of the volumes handled by its ports, road and rail is transit traffic moving East or West. Up to 60 percent of the road freight traffic transported through Georgia's borders is transit traffic as is 35 and 65 percent of the containerized and bulk volumes respectively hauled by Georgian Railways. The corridor mainly connects the South Caucasus through Georgia, and the Central Asian countries through Azerbaijan and the Caspian Sea.

The perennial issue of informal payments at the Azeri side of land border crossings has not reportedly been completely eradicated, and constitutes a setback for the competitiveness of the corridor. Facilitation payments and rent-seeking behavior of Azeri Customs at Red Bridge BCP are reported to add unpredictability to costs at the border. Further cooperation schemes should be pursued to improve the current situation.

Whereas containerized cargo demand has increased in the direction of Central Asia, the corridor still suffers from inefficiencies that can undermine Georgia's proposition as a viable transit route. As mentioned, the inability to offer rail 'through' tariffs between Poti and Baku (and beyond) creates uncertainty amongst shippers and forwarders. Volatile handling costs in Baku's rail yard and port are a frequent cause of concern for logistics operators. Nonetheless, the unreliability of CASPAR ferry services—that prioritize liquid cargo—is probably one of the most detrimental aspects as far as corridor choice is concerned. In sum, the lack of foothold on the Azeri section of the corridor will need to be addressed somehow if Georgia wants to position itself as a preferred choice for transit.

The imbalance in containerized cargo to and from Central Asia (overwhelmingly, laden containers move east) and the mismatch in incentives between shipping lines and traders regarding containers in transit creates further problems. Since shipping lines are wary of releasing their containers beyond Baku, containers have to be either bought, or hefty deposits and detention fees paid for transits bound for Central Asia. The lack of backhaul cargo (directional imbalance of flows) magnifies transportation costs.

On the Georgian side, facilitation efforts have largely paid off. Still, mandatory security police escorts are required for out-of-gauge shipments during transit through Georgia. Project cargo constitutes one of the market segments where Georgian logistic operators can capture the most value as compared to regular container transit operations. However, there is no choice of provider and a hefty escort fee is charged.

Improving Georgia's role as a transit country and logistics hub for the Caucasus can also facilitate trade. Although currently not operational, a number of projects have aimed at integrating logistics centers with dry port functionality in the Tbilisi hinterland. If container stays are coordinated with (or managed on behalf of) the shipping lines, one trip to reposition empty boxes from the port can be saved. This can reduce outbound transportation costs, and increase the use of groupage cargo for exports coming from Eastern Georgia, Armenia and Azerbaijan through Georgia. The potential to attract these flows can be boosted if any of these centers can be integrated with airport airside access. Such projects should be granted unimpeded access to basic infrastructure, provided they conform to Georgian regulations.

The potential of the CTC, in terms of additional transit traffic, needs to be understood when compared to alternative transit routes. At present CTC plays a relatively minor role in the movement of non-oil cargo between Central Asia and Europe. Instead, the Baltic Ports are the preferred route for imports and exports between these two regions. One particular advantage of the Baltic route is the short-sea leg between the Baltic ports and European ports.³⁸ A recent study by USAID compared the performance of the CTC with alternative routes and found that if the CTC were to become (a) 10 percent less expensive; (b) transit times reduced by a week; and (c) reliability improved in the crossing the Caspian sea, then the corridor could become a much more attractive and competitive alternative, leading to more transit traffic, contributing to reducing the costs of exporting and importing in Georgia and to GDP growth. The division of freight between roads and rail is also not optimal as studies indicate that rail could carry more freight than it does—at present road transport within CTC moves about twice the number of transit containers as railways. Road transport service prices are competitive due to the significant presence of Turkish truck companies that need to secure backhaul cargo. Establishing the right pricing for the use of roads and railways will be important to ensure that the CTC remains competitive vis-à-vis alternative corridors, and attracts more transit traffic.

There is a well-identified need to create a bi-national corridor working group that would be essential to address infrastructure and service weaknesses along the corridor, and negotiate single pricing. This is particularly true in the light of the need for improving the performance of Baku Port and Caspian Sea ferries—but would also be critical for the development of a single pricing mechanism or one stop window for railway pricing along the corridor.³⁹ This would help make the CTC more efficient and competitive, in terms of the services offered. An example is the modern railway container services offered from the Baltic ports to the south towards Odessa and to Kazakhstan—a single price has been negotiated by the companies operating the port and rail services, taking care of all border crossing formalities. Proving such enhanced product offerings goes well beyond investments in infrastructure, but requires a corridor level customer oriented approach and the kind of integrated service provision which has been lacking to date. This requires developing a program of investments for multi-modal freight corridors, focusing on transshipment infrastructure and technologies, in coordination with partners along the corridor. The Scenario Planning methodology might be useful to devise a multi-stakeholder-based strategic action plan for Georgia's role in the CTC corridor.

B. Gaps in Services and Infrastructure

Road Transport

The road network in Georgia is a main facilitator of transit trade and is often a lifeline for economic activity. The East-West Highway carries over 60 percent of total foreign trade and is seen as a central piece in the government's strategy of transforming Georgia into a transport and logistics hub. Major seaports will require continued investment in road and rail capacity. For this reason, improving the East-West Highway remains the top

³⁸ USAID (2012), *Competitiveness Analysis of the Caucasus Transit Corridor: Improving Transit Potential for Central Asia-Europe Traffic*. USAID Economic Prosperity Initiative. September 4, 2012. Available at: http://pdf.usaid.gov/pdf_docs/pnadz433.pdf

³⁹ Ibid.

priority, as it provides the fastest and shortest surface transport link between the east and west of Georgia, and because it provides a parallel, alternative route to the rail East-West corridor.

The European route E60 is the second longest European road corridor and is critical to Georgia's international connectivity. It runs from Brest, France (on the Atlantic coast), to Irkeshtam, Kyrgyzstan (on the border with the People's Republic of China). In Georgia, it runs from the Red Bridge at the Azerbaijan Border to the Poti Port at the Black Sea coast, a distance of about 392 kilometers: this section carries an average traffic of approximately 7,800 vehicles per day and accounts for roughly 23 percent of vehicle utilization on Georgian roads. The upgrading of the East-West Highway to international motorway standards has started with 120 kilometers of the E60 section of the highway have already been upgraded with works on-going or planned on the remaining sections. Georgia still needs to complete the East-West Highway Corridor. Most of the sections have been funded and the remainder is pending a feasibility study. In the longer term, reinforcing the country's North-South links may bring benefits and strengthen the country's role as a transit corridor.

Over the medium to long-term, it will be important to develop a sustainable financing mechanism to maintain the East-West Highway. There is a need to explore the option of bringing in private sector participation for operation and maintenance once the corridor is completed in 2020, which could be financed by tolling. This could free funds for maintenance of secondary and local roads, which are in poor condition, and are critical if Georgia is to reap the full benefits of the East-West Highway. Government's expenditures on new construction for international and secondary roads significantly increased from 0.61 percent in 2010 to 1 percent in 2013 and this level of expenditures is expected to be maintained in 2014.

Beyond large infrastructure construction on motorways, the sustainability of the national road network remains a challenge. The condition of the road network has improved for international roads, but the rest of the network faces significant challenges. While the condition of 76 per cent of international roads is deemed good or fair, the capacity of international and main roads is inadequate to accommodate high traffic growth. This is primarily due to the insufficient funding of routine and periodic maintenance and to the existence of a significant backlog of repairs, which is reflected in the decline of total expenditures on the international and secondary road network from 3.20 percent in 2010 to 2.29 percent in 2013.

Improved regulatory oversight and professional norms are a priority to strengthen services overall. Regulations governing the cross-border road freight services industry in Georgia have gradually converged to the spirit of the EU *acquis* in regards to professional competence, good repute and financial standing. Nonetheless, only a segment of the market is subject to such regulations, which are applied for specific permits needed to operate internationally ('multiple permits'). Georgian operators are required to fulfill these criteria in order to access the European Conference of Ministers of Transport (ECMT)⁴⁰ quota allocation for Georgia (and for instance, the multiple entry permits negotiated with Turkey in 2010/2011). However, no Georgian regulation mandates local operators to comply with access to profession norms when applying for a single international permit.

⁴⁰ ECMT licences are multilateral licences for the international carriage of goods by road for transport undertakings established in an ECMT Member country, on the basis of a quota system. The licences are not valid for transport operations between a Member country and a third country, though can be used for transit.

Changing regulations will affect the cost of transit. The elimination of all EURO-3 trucks from the ECMT quota starting January 1, 2016, is likely to reduce the market share of Georgian operators on EU-Georgia long-haul market, as well as for transit from or to the EU, thereby pushing up costs of such transit. Approximately 95 percent of the trucks registered in Georgia are EURO-3 and below, of which 23 percent are EURO-3 (although not all are ECMT quota-authorized). Nonetheless, EURO-3 trucks will be able to operate under the bilateral system of permits—mostly single permits—provided that they comply with the provisions of the relevant bilateral agreements. This will likely create a downward pressure on regional transport rates, especially for drayage within Georgia, and for medium-haul operations (to and from Azerbaijan and Armenia).

The road freight services industry will continue to play a key role in Georgia's position as a transit country between East and West. A deeper analysis of the possible developments in relation to market access, enforcement of regulations, and the impact on road freight economics of the changing context is probably needed to devise a strategy for the sector. An industry modernization program that can position the industry to reap the benefits of transit would also entail targeted interventions addressing sustainability issues, capacity building (for operators and the regulator) and regulatory reform. While Georgia has signed bilateral road service agreements with over 20 countries, permit-free regimes were found to be in effect only with Armenia and Kazakhstan. In all other cases all three types of permits (bilateral, transit and 3rd country) are subject to a bilateral quota negotiated regularly, and based upon demand of each of the parties. More can be done in this context to facilitate road freight transit.

Railway Transport

Georgian Railways (GR) underwent a substantial restructuring of its business model. Wholly owned by a state-controlled Joint Stock Company, Georgian Railways provides freight and passenger services, and owns, manages and operates its infrastructure through three strategic business units. The freight business unit operates at a profit and is entirely commercial-based, setting tariffs and engaging in contractual engagements with cargo owners and forwarders at its own will. Under the current institutional setting, however, operations are not separated from the ownership of the infrastructure. This will remain unchanged until 2022, based on the EU DCFTA market and infrastructure access provisions for rail transport. Moreover, the railway has issued Eurobonds and is in charge of much of the investment to maintain or replace the infrastructure. Georgian Railways has recently established a number of subsidiary firms in upstream and downstream markets, in order to develop ancillary infrastructure and operate a container terminal in Tbilisi. It has also acquired the forwarding firm responsible for over 80 percent of the transported liquid cargo sales.

The most frequent impediment voiced by logistics agents seems to be the availability and inadequate quality of the rolling stock. Whereas some of the closed wagons are seemingly in good condition, much of the platform cars are seemingly in obsolete state. Special rolling stock for heavy lift or reefer services not readily available (e.g. platform cars have to be even brought from Uzbekistan for heavy lift operations, and gen-set units are not easily obtained). Moreover, many of the locomotives in GR's fleet have past their service life. This contributes to lower the speeds in certain sections of the corridor, especially where terrain features require more tractive effort and put a strain on other systems (e.g. braking) that lead to suboptimal operational practices. To this effect, the company has a plan to rehabilitate existing rolling stock and purchase new equipment. Moreover, much of the rail infrastructure upgrading in need seems to be underway.

The harmonization of rail tariffs across the corridor is probably the most pressing need in regards to the commercial side of operations along with pending capacity issues. Automation has improved and also GR's booking system use. Nonetheless, the lack of a single negotiated tariff is a common source of discouragement to use the corridor in the eastbound direction to Baku and beyond. Whereas this might not be entirely up to Georgian Railways to decide—as it involves other parties, for instance Azeri Railways—the plurilateral initiatives under way (e.g. Silk Wind) might be an opportunity to lock-in some of the benefits that could not be otherwise achieved bilaterally. So far, attempts to operationalize block train operations between Poti and Baku have not led to concrete results. Demand, on the other hand, has been feeble—only 15,000 TEUs/year move in transit through Georgian ports to Azerbaijan and Central Asia. Finally, another concern is that, if left unattended, track capacity bottlenecks west of Tbilisi will affect the performance of the entire network. This might involve not only track infrastructure, but also signaling and ancillary investments in marshalling yards.

Rail border crossings need more assessment. The operations at Gardabani-Boyuk Kessik BCP seem to offer opportunities for improvement and cross-border cooperation. Whereas some framework agreement exists with Azerbaijan, and discussions are ongoing to adopt an agreement for the operation of the Silk Wind train, the comparison of the current operations with the agreed principles, and the needs imposed by the future legal basis established by these MOUs is still not known⁴¹. More in-depth analysis should be made in this regard.

A final consideration should be made in regards to the multiple—and potentially competing—initiatives that the country has adhered to—or plans to—in regards to corridor initiatives involving railway transport (Kars-Tbilisi-Baku, Silk Wind, Viking Train, etc.). An understanding of what the implications are for the other components of the corridor infrastructure of investments in rail services needs to be explicitly incorporated into corridor planning—as for instance, the potential diversion of traffic away from Poti port when the Kars-Tbilisi-Baku rail service is running. While improving conditions and flexibility in corridor operations is a desired outcome, it is not clear that all initiatives might contribute equally to the development of the Georgian logistics industry and infrastructure assets.

Maritime Transport

Poti port is the main maritime gateway in Georgia, and a spearhead of the corridors that transit the Caucasus region leading to the Black Sea, with direct rail access and connections to the East-West Highway. The port is managed by a global operator that has committed substantial resources for its expansion (including a new Inland Container Depot (ICD)) after acquiring a majority equity position from foreign institutional investors. Considering the port's limitations in draft and storage space, operations seem streamlined and make good use of the existing resources. There were no major complaints from the community of logisticians and forwarding firms in regards to its operations, except for alleged delays in berthing time during peak season or bad weather.

The main question about the port seems to be related to existing capacity constraints, the pace of throughput growth, and the effect of competing alternatives (e.g. Kars-Tbilisi-Baku rail link). As far as container throughput growth, the diversion of traffic from Bandar Abbas to Poti brings questions about the

⁴¹ A copy of the current legal framework governing the Gardabani BCP rail border crossing was requested to the Transport Policy Department but could not be obtained.

port's ability to consistently expand at rates of 18 percent (CAGR) as in the 2004–12 period. And, if so, how to accommodate those with current capacity levels. All else being equal, taking the port's design capacity for containerized cargo handling (500,000 TEU/year) and a growth rate of 6 percent (12 percent) CAGR⁴², technical capacity would exceed 100 percent by 2020 (2017). In truth, it is believed that Poti's real technical capacity could be as much as 20 percent lower, increasing concerns about congestion down the road.

An intermediate solution underway before considering major infrastructure work is the reconversion of one of the multipurpose terminals to handle containers. Currently, container vessels calling Poti have a maximum capacity of 1,500 TEU, considering the port's maximum allowed draft of 8.5 meters in berths No.7 and 14. However, the port operator is currently upgrading berth No. 12 (planned 285m in length x 13m depth) to accept Panamax-type container vessels, adding another 200–250k TEU/year of capacity . Under the mentioned growth scenarios, reconverting berth no. 12 would allow the port to extend until 2028 (2020 at 12 CAGR) for its design capacity to be reached. A complete overhaul of the port would require significant investment commitments—not necessarily supported by the region's current commercial reality. As far as Batumi port, should announced investments materialize, this could substantially increase the capacity of the container terminal.

Air Cargo

Georgia has implemented a fully liberal policy in regards to market access, removing for the most part all frequency, capacity and airline entry restrictions defined in its air service agreements. As a consequence, passenger traffic almost tripled in the last 6 years, and seat capacity has expanded more than twofold. Nonetheless, air cargo volumes are still modest (approximately 16,000 tons) and exclusively concentrated in Tbilisi International Airport. Despite Georgia's commitment to liberalization, its overall aviation policy has not been formalized. The potential for air freight development in the country is still largely unrecognized. Moreover, proposals to divest away cargo operations from Tbilisi International Airport to other existing or to a new all-cargo airport have been voiced by media outlets and Georgian stakeholders. Whatever claims to the contrary, such proposals do not seem to have any commercial viability under current circumstances.

Tbilisi and Batumi airports were concessioned in the form of a Build Operate and Transfer (BOT) agreement with a Turkish consortium until 2027. With skyrocketing passenger growth rates following market liberalization, the levels of service during peak hours have substantially decreased at the new passenger terminal in Tbilisi Int'l Airport. The new apron space—completely rehabilitated together with the passenger terminal—also poses capacity limitations to accommodate wide-body aircraft. Meanwhile, the old apron adjacent to the cargo terminals cannot handle widebodies, due to pavement specifications. In a growing market like Tbilisi, it is unclear when ramp capacity will start to impose constraints for operations, all else being equal. Accordingly, it is important to understand potential demand for ramp space for different types of carriers, and the windows open for their operations—for passenger and all-cargo carriers alike. Based on this, the rehabilitation of the old apron or the extension of the new one will have to be factored in at due time.

The current road usage fee introduces a significant bias against air cargo development, dilapidating Georgia's advantage as preferred transit airport within a 700–900km catchment area. The road usage fee

42 Container throughput grew at 18 percent CAGR during 2004–12.

(GEL 200/vehicle) is charged irrespective of the type of vehicle used, payload and the distance traveled. Since the distance to the Azeri or Armenian border from Tbilisi (60–70 km) is one third of the distance from Sarpi or Poti (325–385 km), the flat structure of the road fee constitutes a tax on all transit shipments leaving or arriving through Tbilisi airport. Furthermore, other cargo-related cost components to access essential services and infrastructure (e.g. cargo security) should reflect the recovery cost of their provision. In sum, a strategy should be defined to position Tbilisi as the preferred choice within its natural catchment area.

C. Trade Facilitation and Supply Chain Management

The supply chain management industry is still in its infancy in Georgia. Whereas Third Party Logistics Providers (3PLs)⁴³ are present in the country, they do not offer a full range of services as in other more logistics-mature countries. A reliance on typical transit operations is evident for the most part as far as freight-forwarding is concerned. Even so, the footprint of logistics operators along the corridor is rather limited: in Georgia, sales control in the container market is merely 7 percent (only 7 out of 100 containers entering and leaving Georgia are booked in the country). The most sophisticated segment of the market, comprised by a few firms, shows a higher degree of vertical integration, and offers brokerage, transport and warehousing services. They have also developed services specialized in the project cargo, heavy lift and out of gauge segments, which represent higher margins and value added for the industry.

Further training, skills and convergence to best practices is needed. Companies try to manage their logistics assets in house for the most part, and there is a lack of awareness of the possibilities and potential to outsource some of these, or even to enter in joint-ventures. There appear to be incentives for vertical integration in transportation activities, internalizing some of the mismatched incentives along the logistics chain. At a larger scale, joint-ventures between with other logistics service providers in different countries should be encouraged; these might represent a bigger challenge for smaller traders and manufacturers, considering the needed investments. Supporting the development of third party supply chain management providers and logistics platforms may be desirable in Georgia. Different initiatives undertaken by international donors and local stakeholders to further develop the market and human resources (curricula in logistics) should be sustained in time.

Access to profession regulations for freight forwarding was eliminated in Georgia and the Revenue Services provides brokerage services. A phased transition to a system where the self-assessment principle in filing customs declarations is restored should be accompanied by further capacity building to develop the forwarding and brokerage business. A deep discussion about the model that suits Georgia's business needs is necessary between all stakeholders.

⁴³ A third-party logistics provider is a firm that provides service to its customers of outsourced (or "third party") logistics services for part, or all of their supply chain management functions. Third party logistics providers typically specialize in integrated operation, warehousing and transportation services. If these services go beyond logistics and include services that integrate parts of the supply chain, the provider is called a Third-Party Supply chain Management provider (3PSCM).

Box 4.1. Wine Exports Supply Chain

Between 2007 and 2012, Georgia exported US\$38 million per year in wine. After hazelnuts and liquid spirits, it is the third most important non-extractive product sold overseas by Georgian producers (approximately 2.6 percent of total exports). The most important destinations are Ukraine, Kazakhstan, Belarus and Poland. Georgian wine is believed to be in the mid and high level quality tier, with over 525 grape varieties grown in the country. Two types of wines are being exported: table wines, of lesser quality; and hi-quality wine (i.e. aged in oak barrels, or other unique production system). Georgia itself requires homologation by National Wine Agency previous to export.

A reputed wine exporter mentioned that typical handled quantities range between 180,000–200,000 bottles (0.75L bottles) per month with a total turnover of EUR 8 million per year. With 60 to 90 days credit payment, and quantity/price duration contract for at least a year, the typical cash-to-cash cycle is two months. Approximately 1.5 months of production are kept in stock; both production to order or sales from inventory are a common practice. Order times for inputs from placement of order to receipt of goods at factory vary quite widely: EU—6 weeks, Russia—1 week, and 1 week for Georgia. On the other hand, the order times for products from receipt of order to delivery to buyer is 3 weeks for Russia, 6 weeks for China, and 4 weeks for EU.

The biggest market for the interviewed firm is Russia (70 percent), followed by other CIS countries like Ukraine, Kazakhstan, Baltics, Armenia account (20 percent), and Asia, EU and US (10 percent). The Russian market has recently opened to Georgian wine, where they must undergo a homologation process. Peaks months are Sep-Dec, and March–April. Nonetheless, previous to the winter, some stocks are built in Russia due to the closure of the land border. During a typical week, up to 11 trucks are dispatched for international markets, at an approximate value of EUR 25,000 and 12–15,000 bottles per order. For sales to Ukraine and Russia, sales terms are mostly EXW, so the company does not handle the logistics, which become the buyer's responsibility. For the rest of the CIS, it is believed that sales terms are mostly DAP (carriage to place of destination) so that transportation becomes the company's responsibility. The company hires a third party provider for transportation.

Transportation costs are estimated at US\$4,500 per truckload to Russia (up to 16,500 bottles), EUR 3,500 per truckload to Poland, EUR 4,000 per truckload to Germany and US\$4,500/FEU to China. According to the company, 90 percent of the shipments arrive to the buyer at the agreed schedule. Nonetheless, the company's main complaints are Russian formalities and informal payments in Azerbaijan. Inputs are mainly imported, coming from Portugal (cork), Russia, Italy (bottle), Turkey and France (cork, oenology materials); bulk wine, labels and boxes (as well) are locally sourced. Trucking from Russia might cost US\$2,000–3,000 and EUR 5,000–6,000 from Europe.

Trade facilitation has progressed significantly in Georgia. Whereas many years ago transit through Georgia was a lengthy and expensive proposition (e.g. convoys and mandatory escorts, bureaucratic procedures to issue internal transit document “VVT”) border management reforms since 2004 have contributed to radically streamline processes and bring much needed efficiencies. Thanks to the new model, clearance times in Georgia have been

lowered to a bare minimum, and the number of intervening agencies (for clearance) at the border reduced to one—Georgian Revenue Service.

Nonetheless, there are several challenges. These particularly relate to border management and are briefly summarized here:⁴⁴

- i. Current inland transit control practices open up space for malfeasance. The time allotted to transit for transport means is not aligned to international practices, and there is little if any mobile enforcement capacity to prevent and mitigate transit fraud inland. This is, as in many countries, a task entrusted to Customs, and not left to regular police forces. It is also unclear if the penalties associated to transit fraud provide the right framework to deter fraudsters.
- ii. One of the core responsibilities of border control agencies is to safeguard the common good preventing different types of criminal activity or negligent actions that might endanger the public. Focusing in transit control exclusively from a revenue perspective might steer away from fundamental aspects related to supply chain security.
- iii. The guarantee system⁴⁵ in place—or the lack of it—raises concerns with regards to the level of enforcement in transit control and the use of the current automation tools already installed. On one hand, ongoing work is being carried out to improve the electronic applications of TIR⁴⁶ (EPD and SafeTIR) interfacing with ASYCUDA WORLD⁴⁷, since TIR is in place for international transits. On the other hand, the Guarantee Management module of ASYCUDA WORLD is seemingly not operational.⁴⁸ Moreover, transit generated within Georgia (i.e., from the border to inland, or from inland to the border, and possibly from one border to another) is apparently more often covered by the Georgian system than by TIR due to the absence of a mandatory guarantee, and is enforced through seal and time control; x-ray scanning is performed based on selectivity, and truck weight reconciliation when applicable. When Georgia accedes to the EU's Common Transit system (known as the New Customs Transit System or NCTS for Europe), a guarantee system will have to be implemented.
- iv. The self-assessment principle of a trader filing their own customs declaration has been lost. Instead, Revenue Service officials enter manually most of Customs declarations in Georgia, based on supporting

⁴⁴ See Saslavsky (2014) for details on institutional set up and current procedures.

⁴⁵ While national Customs transit can be arranged by the provisions of respective national Customs law, international transit operations require the negotiation of a bilateral or multilateral agreement. Such an agreement generally sets out the form of the goods declaration for transit, the forms of security required acceptable for each administration, as well as sealing requirements and procedures to secure the integrity of the consignment during transit, including technical specifications for transport equipment to qualify for transport under Customs transit. Key to the success of a transit agreement is the guarantee system, i.e. whether it can satisfy a) the requirements of Customs to cover potential duty liabilities, and b) the requirements of the transport and business sector for acceptable terms and conditions. In cases of increased risk of smuggling, in particular for goods which are subject to high duties or excise taxes such as tobacco products, Customs should refrain from imposing Customs escort arrangements, which are very costly, slow down the transport process and provide an opportunity for corrupt practices. Instead, Customs should either look into the use of modern track and trace systems attached to the transport units which enable proper control of the transport, or specify specific guarantee requirements for the transport of high duty goods.

⁴⁶ Customs Convention on the International Transport of Goods or TIR is one of the most successful multilateral agreement on international transit.

⁴⁷ Computerized system for managing customs administration as developed by the United Nations Conference on Trade and Development (UNCTAD).

⁴⁸ Confirmed by UNCTAD.

documents provided by the trader, which constitutes a potential conflict of interest. This process also breaches the practice of physical and sight separation between traders and Revenue Service officials.

- v. The fee for customs “clearance of goods”⁴⁹ should be re-assessed to only reflect the recovery costs of service delivery, as stipulated in the context of the Georgia-EU Association Agreement and DCFTA, and WTO’s Trade Facilitation Agreement.
- vi. If upstream control measures are undermined, any anti-smuggling enforcement activities downstream lose effectiveness. The activation of the Manifest module in ASYCUDA WORLD—allegedly in sight of RS authorities—would allow an accurate automated acquittal of all goods unloaded at entry points against all Customs and transit declarations; creating a more difficult scenario for goods to ‘leak’ into the domestic economy.
- vii. Substantial improvements have been made in risk management, including the buildup of risk profiles, the integration of other databases (e.g. personal records, plate readers, etc.) and the extension of a transit risk management module. Nonetheless, the selectivity system needs further improvement. Currently, detection rates hover around 1–3 percent, well below a 10–25 percent desirable target range. Furthermore, an over-reliance on the “in situ” documentary check being carried out in parallel with the filing of Customs declarations undermines the purpose and effectiveness of the Yellow Channel. Post-clearance checks ('Blue channel') are allegedly based on documentary re-checks, and not on other internationally accepted forms of in-company audit.
- viii. Gold list membership requirements do not entail any security auditing. While providing expedited treatment to trusted operators is a recognized practice, the enforcement role of border management agencies cannot be entirely divested to post-clearance documentary checks.. Trusted operators might unknowingly attract unlawful activity eager to take advantage of the expedited treatment granted to them.
- ix. The process for groupage cargo clearance is not aligned with the development of logistics services in Georgia. Due to the limited bonded warehouse space at the customs clearance zones (GEZIs) and the prohibition for groupage cargo to be directed under customs control to the importers’ premises (except for Gold List members), trucks cannot be released until all importers have filed a declaration and goods cleared, causing frequent delays that add to the overall service costs (especially onerous for smaller exporters/importers). A new customs clearance zone (CCZ “Tbilisi 2”) has been recently inaugurated to specifically handle consolidated shipments. Nonetheless, also procedures should be compatible with modern requirements for consolidation services. In other environments like the EU, Customs only interacts with the consolidator (except under special conditions) that can perform all clearance operations on behalf of consignees or shippers, reducing drastically the number of intervening parties.
- x. In the opposite side of the map, joint border operations with Turkey—which entail infrastructure and procedural improvements—are expected to relieve some of the congestion common in the access road leading to the border area of Sarpi BCP, where processing capacity and time for clearance substantially differs between both sides. The current linear border design (constrained by the lack of physical space

⁴⁹ Resolution by the Government of Georgia N96 March 30, 2010, and subsequent modifications: <http://www.rs.ge/en/5040>

to introduce more efficient BCP arrangements) does not contribute to relief some of that congestion. The problem with the current first come-first serve linear design is that it matches overall waiting time to the longest process. Hence, some form of queue management will need to be introduced in the future if congestion continues to build up. Low risk traffic could be targeted early on, and separated from the rest into a fast-track lane. The establishment of a monitoring and evaluation system that benchmarks current processes and allows assessment of services, enforcement and strategic planning would be desirable.

D. Conclusions and Policy Messages

Considering its population base, income per capita, and geographical position, Georgia has made it a strategic priority to position itself as a transit country and to enhance its participation in global value chains by providing transport and infrastructure services. The Government remains committed to strengthening Georgia's capacity to become a regional hub, and to improve the border management environment. Moreover, it allowed private sector participation into the ports sector, while enhancing road infrastructure along the East-West Highway. The railway sector was reformed, and its freight services operate on a commercial basis. Furthermore, the commercial civil aviation sector operates under a completely liberal regime. Potential transit flows are large when compared to current volumes handled on the CTC.

The overall value proposition of the CTC however, under current circumstances, might not be able to match other corridor options. In general, the CTC does not seem to be able to compete merely on a cost basis with other options, especially Iranian ports for shipments to the Caspian countries that are not originated in the EU or in the United States. This might change based on the requirements of specific supply chains that need enhanced reliability and visibility. In those cases, the CTC might represent an intermediate solution to Turkish ports. For European and US-originated consignments, Baltic ports would naturally represent a more competitive choice for shippers, given the seamless block train services, especially to Kazakhstan. In the case of heavy lift cargo, the waterway system of the Volga-Don seems to be the preferred choice during the ice-free navigation season.

The competitiveness of CTC corridor in this segment is also very much dependent on costs which remain out of Georgia's control. Overall pricing increases significantly due to transshipment costs from railway to truck and distribution for final delivery within Azerbaijan. As mentioned, a single negotiated rail tariff is not in place between Georgian Railways and Azerbaijan Railways, and hence block trains are not functional from a commercial standpoint between Poti and Baku. Significant delays and reliability issues arise due to the CASPAR ferries availability and alleged 'sudden' variations in costs. In addition to this, mismatched incentives add to the costs of the corridor to serve Central Asia, due to hefty deposits and detention fees paid for containers, and the lack of backhaul cargo. Moreover, for out-of-gauge cargo hefty security escorts fees are charged.

International cooperation remains critical for the development of the CTC. Considering that some of the avoidable costs and delays do occur outside Georgia's borders, engaging other partners along the corridor—namely Azerbaijan—will be critical for enhancing the efficiency of the CTC. Regional cooperation through TRACECA and on a bilateral basis could be useful channels. Creating a bi-national corridor working group could set a desirable environment for deeper cooperation. However, a corridor-level customer oriented approach and

integrated service provision will be necessary (lacking to date) including the development of an investments program for multi-modal freight corridors. The Scenario Planning methodology might be useful to devise a multi-stakeholder-based strategic action plan for Georgia's role in the CTC corridor.

Table 4.3. Main Policy Messages

Border Management

- Restore self-assessment principle in lodging customs declarations.
- Align fee structure with recovery costs for customs clearance services (filing customs declarations) provided by the Georgian Revenue Service.
- Revise allowed transit times through Georgia for means of transport.
- Enhance domestic transit system and guarantee management functionalities in ASYCUDA WORLD.
- Revise legislation to provide Revenue Service (RS) with competencies to perform inland transit controls and enhance RS mobile control units.
- Enhance upstream control measures such as carrier direct submission of Manifest data into ASYCUDA WORLD (Manifest Module).
- Enhance risk management systems.
- Improve post-clearance checks and procedures beyond documentary checks (Blue channel).
- Enhance audit procedures of Gold List member firms, including supply chain security audits.
- Facilitate procedures for groupage cargo to avoid delays in discharging trucks from the GEZIs.
- Continue cooperation efforts with Turkey for joint border operations and explore traffic management schemes for Sarpi BCP.
- Enhance institutional capacity and strategic planning of Georgian Revenue Service; consider using benchmarking tools.

Supply Chain Management

- Support training and skills upgrading in the logistic and supply chain management sector, directly or indirectly, with other international donors.
- Continue support of advocacy groups and efforts to build a supply chain management curricula with local universities and/or partnerships with foreign technical institutions
- Explore alternative regulatory models for the forwarding sector, conducive to improve quality of service (access to profession, professional competence); including a capacity building program

Corridor Development

- Strengthen cooperation and institutional framework with Azerbaijan:
 - ✓ Facilitate border management and ensure transparency of costs and procedures.
 - ✓ Operationalize block train from Poti to Baku and beyond; including a transparent single negotiated rail tariff (ADDY) and accessorial.
 - ✓ Deepen cooperation with CASPAR to address charges transparency and schedule reliability for ferry services.
 - ✓ Operationalize bi-national Corridor Working Groups.
- Allow competition in the escort services fee for out of gauge transit cargo, or set fee on a recovery cost basis.
- Promote pilots of joint-ventures between shippers, forwarders and (alternative) companies providing shipping services in the Caspian.
- Promote establishment of logistics centers with dry port functionality operating on commercial basis.
- Assess incentive scheme for road transit vis-à-vis rail transport, including road usage fee.
- Continue regional cooperation through TRACECA.
- Boost strategic planning at the corridor level; consider using scenario planning methodologies.

Table 4.3. Main Policy Messages

Road Infrastructure and Road Freight Services

- Complete remaining sections of the East-West Highway Corridor (already under way).
- Explore different financing mechanisms and future private sector participation for operation and maintenance after completion of the E-W Highway (e.g. tolling).
- Improve secondary and local roads network to help reap full benefits of investments in the East-West Highway.
- Explore role of North-South road links to enhance Georgia's transit role.
- Devise a strategy for the road freight services sector that would address, *inter alia*:
 - ✓ Market access issues
 - ✓ Access to profession regulations
 - ✓ Capacity building and sustainability aspects

Railway Transport

- Support Georgian Railways' efforts to separate operations from the ownership of the infrastructure by 2022.
- Upgrade and expand rolling stock.
- Solve track capacity bottlenecks West of Tbilisi (e.g. Poti–Samtredia and Zestaponi–Khashuri) within ongoing rail network modernization efforts.
- Assess existing rail border crossing agreements vis-à-vis current practices, and implications of new service initiatives (e.g. Silk Wind).
- Incorporate future railway initiatives in the context of corridor planning and its impact on other logistics and transport infrastructure assets in the country.

Maritime Transport

- Concentrate efforts to upgrade existing port infrastructure.

Air Cargo

- Concentrate efforts to promote Tbilisi International Airport as sole cargo gateway.
 - ✓ Assess apron space needs for cargo operations, and feasibility of enlargement/upgrading of the new and old apron.
 - ✓ Revise road usage fee structure for transit air cargo in/out of Tbilisi International Airport to support development of Tbilisi as a preferred air transit route.
 - ✓ Assess charges for essential services and infrastructure use (cargo security) in relation to its recovery cost.

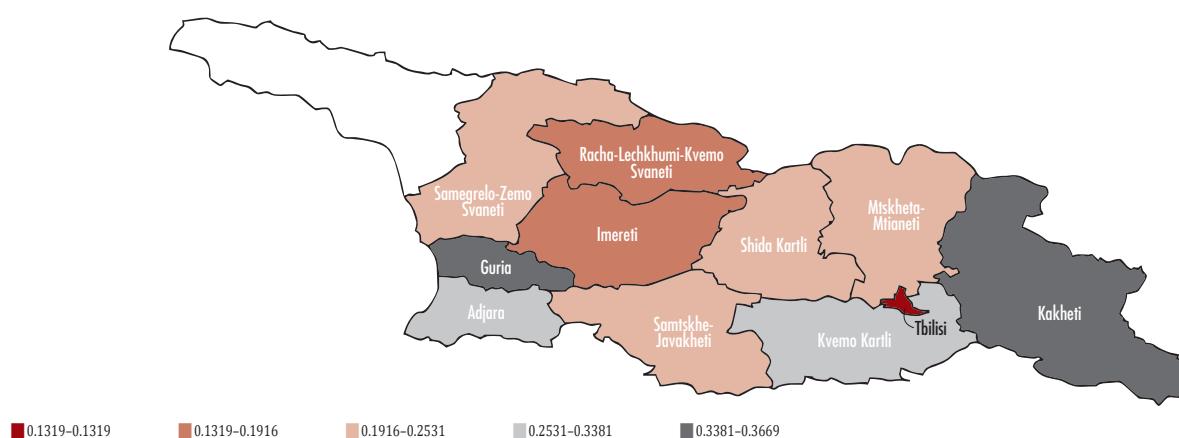
CHAPTER 5: CONSTRAINTS ON FIRM COMPETITIVENESS: BEYOND TBILISI

Georgia's regions have benefited unequally from last decade's rapid economic growth and an intensification of international trade, yet Georgian regions have failed to benefit. Solid growth rates and evolving trade patterns—and the development of large trade deficits—have not been accompanied by regional convergence in terms of either income or productivity. A case in point is Tbilisi, the capital, which contains approximately one third of the national population and accounts for half of the country's GDP. The city-region's per capita output levels are almost twice the national average and more than three times that of the most lagging regions. The large internal growth differences that have taken place—largely benefitting capital city-regions⁵⁰—are, not unique to Georgia and are in common with other transition economies in Eastern Europe.

The globalization process offers unprecedented opportunities for firms to grow and regions to prosper; but heightens the risk that some firms and regions will be left lagging behind. Greater integration into global markets, in conjunction with dramatic advances in information technologies, has created significant competitive pressures for firms to adapt to. While the economic literature stresses the importance of trade for growth, the impact of global integration on regions in the presence of spatial inequalities is especially relevant for Georgia. Whether greater trade openness increases or lessens regional disparities depends largely on differences in terms of local endowments, accessibility to trade, and local government capacity⁵¹.

Figure 5.1. Poverty Differentials by Region

Proportion below 60% of median consumption



Source: Hardy and Rodriguez-Pose 2014.

50 Farole et al. 2011.

51 Williamson 2005; Brülhart 2011; Rodríguez-Pose 2012.

Georgia is set to embark upon an ambitious strategy for decentralization and the strengthening of government at the regional level, a complex agenda that brings potential benefits but also entails economic risks. The aims of the decentralization reforms include increasing democracy, transparency, and efficiency in the delivery of public goods and services. While improvements in these areas will certainly contribute to strengthening local institutional environments, with a potentially beneficial impact on firm competitiveness, the transfer of powers and resources to sub-national tiers of government also entails risks related to varying capacities to implement policies that may exacerbate existing regional gaps.

The questions that arise are about the impact of regional characteristics vis-à-vis firm competitiveness, and how the decentralization process will impact upon existing disparities. Firstly, how do local conditions affect the competitiveness of Georgian firms in different ways in different parts of the country? Secondly, how is the on-going process of decentralization likely to increase or reduce any potential differences in the competitiveness of firms and for the development prospects of the region as a whole? To address these questions, we directly analyze regional differences in firm competitiveness throughout Georgia by analyzing a range of firm characteristics and region-specific factors. We also examine, in light of any existing disparities, how the process of decentralization may contribute to reduce or, by contrast, exacerbate existing disparities.

Firm specific characteristics matter more than location or place-specific effects. Local public expenditures, transport infrastructure, and human capital endowments are particularly important for the competitiveness of Georgian firms. As global trade continues to intensify—especially in view of the DCFTA with the European Union (EU)—building capacities in less favored areas is imperative to avoid causing further harm to lagging regions, and to enable more firms to raise their competitiveness, grow, and benefit from scale economies. While the nature of Georgia's firms, with a large proportion of exports and value added being derived from low-productivity sectors, affect the strength of the findings, the impact of improved public services in the regions is only likely to strengthen as firms evolve to levels that enable better exploitation of the positive externalities associated with knowledge spillovers and trade opportunities.

International evidence on the impact of decentralization is mixed, especially given the complexity of the process. Decentralization in emerging countries has frequently led to efficiency losses due to agency problems—linked to the separation across tiers of government taking expenditure decisions and those responsible for collecting taxes—and increased territorial competition⁵². Decentralization has also been linked to an increase in territorial disparities, which depend on initial conditions. At the same time, however, decentralization has been associated with lower poverty, improved voice, and strengthened public services.

The rest of this chapter is organized as follows. Section A reviews regional inequalities. Section B reports the results of the assessment of the extent to which the capacity of Georgian firms to compete is affected by their location (i.e. place-based effects) or by the characteristics of each firm (i.e. sorting and compositional effects), or of a combination of the two. Section C examines the evidence on decentralization and spatial disparities and Section D concludes.

52 Prud'homme 1995; Rodríguez-Pose and Gill 2005.

A. Growth in Georgia: Sub-National Trends

Georgia has fostered a strong basis for economic growth over the past ten years. During the last decade the country has achieved impressive GDP growth rates, peaking at an annual rate of over 12 percent in 2007, before a triumvirate of crises', including mass-demonstrations in 2007, the global financial crisis in mid-2008, and the 2008 August conflict with Russia, brought this to an end. However, Georgia has recovered quickly following this recent economic and political turbulence, resuming solid growth apart from a temporary slow-down in 2013.

Increases in Georgian output have moved in parallel with increases in external trade and widening territorial disparities. Over the last decade, the value of imports and exports has escalated, averaging above US\$600 million and US\$200 million per month in 2013, respectively. However over this period of growth and growing trade, spatial inequalities have become persistent across Georgian regions, and do not show notable improvement.⁵³

Table 5.1. Convergence of Regional GNI, 2006–12

Average across all regions = 100ⁱ

	2006	2007	2008	2009	2010	2011	2012
TB	187.14	191.39	184.59	180.46	181.04	181.73	190.77
SJ	71.53	76.74	85.37	87.40	87.77	88.47	85.05
GU	88.38	82.84	73.38	76.45	75.75	75.44	74.95
IM_RK	62.81	67.32	72.66	76.79	73.26	72.32	70.47
KK	64.43	62.99	62.24	61.14	66.05	67.34	62.98
SZ	81.77	76.59	62.29	62.69	67.01	66.46	61.88
AD	71.19	67.05	67.22	73.28	70.59	67.42	61.63
KA	74.47	65.64	67.23	64.69	65.57	66.58	60.29
SK_MM	63.89	58.82	64.76	58.57	59.26	60.31	57.01
Standard deviation	0.339	0.355	0.342	0.344	0.334	0.335	0.374

Source: Hardy and Rodriguez-Pose, 2014.

Note: Ranked by 2012 GDP index values. i = Based on Enterprise Survey data provided by GeoStat.

The magnitude and persistence of regional gross national income inequalities are underscored by the supremacy of the capital, as in many other ECA countries. Tbilisi contains approximately one third of the national population and accounts for half of Georgian GDP. The city-region's per capita output levels are almost twice the national average and more than three times that of the most lagging regions. The data also suggests that regional inequalities are highly persistent and have tended to expand in periods of economic growth. In other transition economies in Eastern Europe as well, especially in small economies such as Slovakia, Romania, and Estonia, big internal growth differences have taken place, largely benefitting capital city-regions⁵⁴.

The characteristics of Georgia's regions vary considerably, in line with income disparities. Tbilisi is dominated by the services sector. Kakheti, by contrast, is much more dependent on primary sectors—agriculture—and agri-

53 Based on Enterprise Survey data provided by GeoStat.

54 Farole et al. 2011, Tondl and Vuksic 2003; Farole, Rodríguez-Pose, and Storper 2011, Banerjee and Jarmuzek 2009, Altomonte and Colantone 2008, and Tatar 2010, reveal similar patterns.

business (mainly wine). Kvemo Kartli, and to a lesser extent Shida Kartli and Mtskheta-Mtianeti, are much more orientated towards industrial activities, likely owing to their proximity to the largest market, the capital region. In terms of productivity, the most productive regions, and those that have ascended the national income hierarchy, are those with large services (Tbilisi and Adjara) and industrial (Kvemo Kartli) sectors. The poorest (and most unproductive) are characteristically agrarian. The data also reveal a distinctive East-West divide, which, with the marked exception of Tbilisi, favors the regions in closer proximity to Georgia's coastline.

The presence of significant minority population groups and high incidence of poverty may have significant effects on the productivity of individuals and firms. Minority groups may be socially, economically or politically marginalized, and face greater barriers with respect to their access to the labor market and in the acquisition of skills. In Georgia, there are significant minority groups in the South and Western regions, those bordering Azerbaijan and Armenia and particularly the Samtskhe-Javakheti (53 percent of Azerbaijani nationality) and Kvemo Kartli (51 percent of Armenian nationality) regions. The incidence of poverty, measured in terms of the proportion of the population below 60 percent of median consumption, exhibits a relatively strong Eastern bias, with the exception of Tbilisi and Guria, reaching up to 36 percent of the population in the Kakheti region. Poverty picks out some of the least-productive regions of Georgia.⁵⁵

Table 5.2. Regional GVA Share by Sector, 2012

In percent

	Agriculture	Industry	Construction	Services	Public Administration
Tbilisi	0 (0)	12.8 (-0.9)	11.6 (0.4)	59.3 (-2.5)	16.2 (3.1)
Adjara	7.1 (-5.7)	11.3 (0.8)	11.9 (-1.0)	44.3 (4.9)	25.4 (1.0)
Samegrelo Zemo Svaneti	19.6 (-4.1)	13.6 (4.0)	3.8 (-3.1)	38.4 (0.7)	24.5 (2.5)
Imereti_Racha-Lechkhumi Kvemo Kartli	13.2 (-11.5)	17.1 (5.1)	2.0 (-0.5)	35.3 (5.2)	32.4 (1.8)
Guria	27.3 (-4.7)	11.0 (-5.7)	1.8 (-0.9)	31.0 (8.7)	28.9 (2.6)
Kakheti	24.7 (-5.3)	17.2 (2.0)	2.1 (-0.2)	26.6 (2.7)	29.4 (0.8)
Shida-Kartli_Mtksheta Mtianeti	17.9 (-7.1)	27.7 (3.4)	3.0 (-6.9)	21.2 (1.6)	30.2 (8.9)
Samtskhe-Javakheti	29.2 (-0.5)	10.4 (-6.4)	4.5 (3.9)	19.7 (-2.8)	36.3 (5.8)
Kvemo-Kartli	17.7 (-5.1)	41.1 (-1.9)	2.3 (0.9)	17.5 (-0.4)	21.4 (6.5)

Source: Hardy and Rodriguez-Pose, 2014.

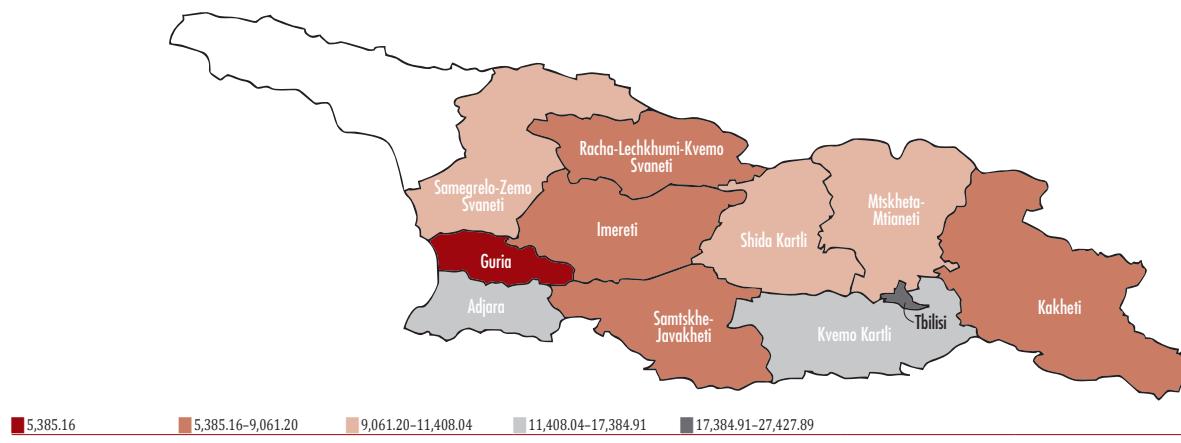
The competitiveness of places, and their firms, is central to regional economic development and a key concern for policy. The firm, and its ability to compete, plays a central role in explaining the differential economic performance of regions and countries. Global trade, by increasing competitive pressures, can demand greater efficiency from firms, and make them increase investment in efficiency-boosting areas such as R&D and new technologies in order to rise to global challenges. Naturally, firm- and industry-specific characteristics explain much of a firm's ability to survive, meet global competitiveness challenges, and increase export performance. It is becoming increasingly evident, however, that the characteristics of regions also play a significant role in facilitating firm competitiveness and economic development, and offer considerable scope for policy.

By mapping firm competitiveness we can clearly see that there is a distinct geography to firm competitiveness in Georgia, matched closely by capital intensity of production. Interpreting competitiveness as simply 'a

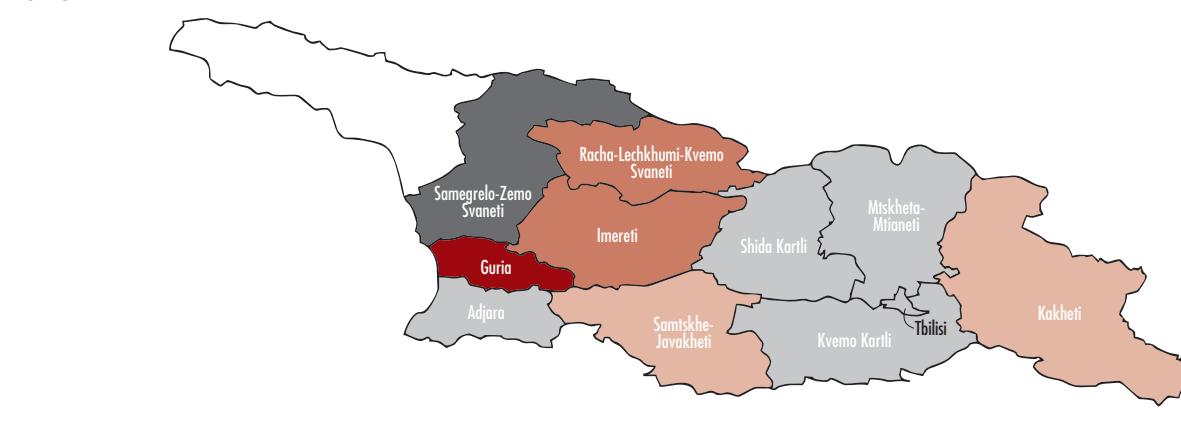
⁵⁵ Percent change since 2006 in brackets.

Figure 5.2. Labor Productivity in 2012

GVA per worker in GEL

**Figure 5.3. Capital Intensity Pattern is Similar that of Productivity**

Capital per worker in GEL



poetic way of saying productivity⁵⁶, a measure of labor productivity, namely gross value-added (GVA) per worker, can be obtained with data from the Industrial Census. The difference between the productivity performance of Tbilisi and the small, lagging coastal region of Guria is considerable, with the former achieving productivity levels five times that of the latter. Although large firms are generally the most productive, on average, the differences across firm size are relatively small, with the exception of those located in Shida Kartli and Mtskheta-Mtianeti. For the most productive regions, including Tbilisi, Adjara, and Kvemo Kartli, it is, surprisingly, small- and medium-sized firms that are the most productive.⁵⁷ The geography of the average capital intensity (Figure 5.3) of Georgian firms follows a similar pattern to that of productivity (Figure 5.2). Ideally, several other firm-level factors, such as

56 Krugman 1997.

57 As a robustness measure, we create additional measures of firm performance. First, we calculate TFP for a sub-set of manufacturing firms. We follow Levinsohn and Petrin (2013), using intermediate inputs such as materials and energy expenditures as instruments to overcome bias evident in traditional productivity estimates. We are unable to compute common alternatives, such as the Olley-Pakes method, due to very limited data on firm investments. Secondly we compare the results with simple measures of firm competitiveness, profit per worker and market share, to check the validity of our results. In the case of these simple measures, the results largely corroborate the main labor productivity results.

age and export activity, among others, would have been welcome. Nevertheless, the assembled set of firm-level characteristics represents the best set available from the available industry census data.

Table 5.3. Labor Productivity in 2012

GVA per worker in GEL by firm size

	All	Micro	Small	Medium	Large
Tbilisi	27,427.89	29,768.96	26,789.13	17,480.57	19,014.50
Adjara	17,384.91	16,602.88	20,837.37	13,463.63	12,067.78
Kvemo Kartli	13,623.20	12,387.34	13,456.18	27,315.59	19,476.06
Shida Kartli & Mtskheta-Mtianeti	11,408.04	8,955.16	16,807.26	18,183.53	46,022.65
Samagrelo-Zemo Svaneti	11,030.35	10,258.57	11,649.84	15,638.25	25,033.61
Kakheti	9,061.20	6,787.73	12,624.84	31,902.82	12,960.49
Samtskhe-Javakheti	8,027.00	6,568.94	11,091.19	16,158.18	
Imereti, Racha-Lechkhumi & Kvemo Svaneti	7,696.49	6,935.76	9,612.47	13,772.94	7,859.06
Guria	5,385.16	5,922.31	3,718.93	2,383.36	

Source: Hardy and Rodriguez-Pose (2014).

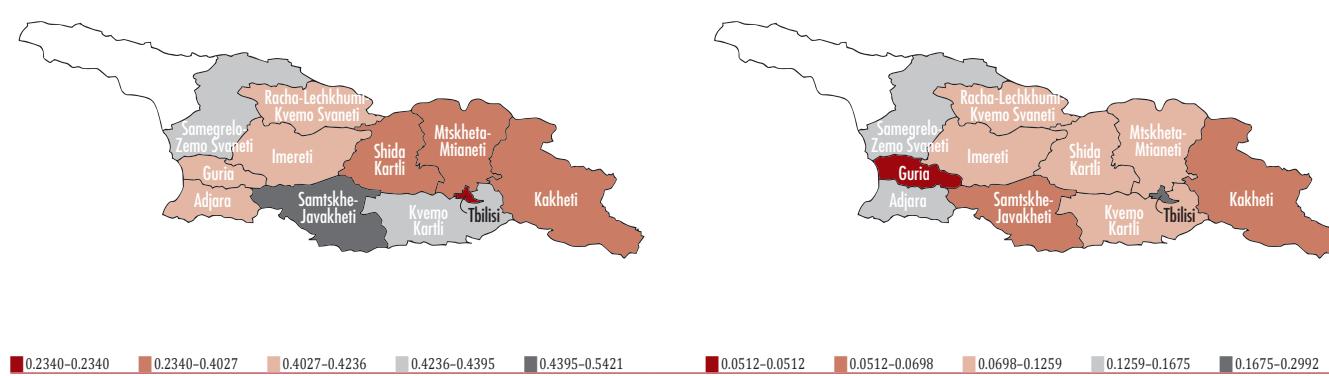
Note: Sizes are defined as follows: Micro (<10 employees), Small (10–49 employees), Medium (51–250) and Large (>250).

The magnitudes of differences in unemployment, skills and labor productivity across regions are wider than those in average incomes. Although Tbilisi is clearly a key center of skilled employment and high incomes, the proportion of highly educated inhabitants is the country's lowest (although nominally highest) and the unemployment rate is more than double that of the other regions in Georgia. This observation is no doubt partly attributable to migrant inflows, but may also be affected by the nature of unemployment statistics in largely agrarian economies. As self-sufficient farming is recorded as self-employment, the heads of households engaged in agriculture are recorded as 'individual entrepreneurs', and family members are recorded as 'unpaid family business workers', unemployment may be underestimated in such areas. Differences in regional patterns with respect to incomes, unemployment and average labor productivity levels suggest that differences in regional labor market conditions (labor demand and impediments to the flows of labor and capital) shape the variation we see in the ranking of regions.

Figure 5.4. Labor Market Conditions and Constraints on Mobility May Explain Variations in Regional Patterns

Human capital, proportion with post-secondary and higher education

Unemployment, proportion unemployed



Source: Hardy and Rodriguez-Pose 2014.

B. Firm Competitiveness and Location

The 2009 World Development Report emphasizes a range of structural, place-specific and ‘softer’ government and institutional factors that are instrumental in shaping the evolution of disparities between regions. The range of regional attributes that can potentially influence the competitiveness of firms can be broadly decomposed into two categories, pure location factors (so-called first-nature geography) and second-nature geography, including agglomeration economies⁵⁸, endowments relating to the local labor market, the business and investment climate, and the institutional setting and policy context. For a country like Georgia, with a dominant urban core, regions in closer proximity to this leading node may benefit from important inter-regional externalities and spill-overs, which must also be reflected in an empirical analysis. In the analysis, firm size (turnover), ownership type (public or private), capital intensity, and female employment share are included as controls for the firm-specific characteristics that affect firm competitiveness.

We draw on a wide range of variables to address the question of how and which region-specific factors drive and interact with firm and market characteristics to influence competitiveness. The data utilized covers a total of nine Georgian regions⁵⁹ over the period 2006–12 and relies on a number of sources, including GeoStat’s household surveys and industrial census. Firm competitiveness is measured as gross value added, but robustness checks utilized total factor productivity and confirmed that the analysis remains valid. Box 5.1 summarizes the variables associated with firm competitiveness in the empirical models.

Variance in labor productivity is driven by spatial, sectoral and firm-specific factors⁶⁰. Using a multi-level modelling framework, structured with region and sector level components, the analysis indicates that 5 percent of the variability in firm labor productivity is attributable to region-level factors, 13 percent to sector-specific factors and the remainder, 82 percent, is a function of firm-level differences. If Georgia is to continue to grow and become a larger player in global trade, it will have to maximize the performance of firms in all areas.

The primary firm-level findings show that bigger firms, higher capital intensities and private-sector ownership are highly positively associated with competitiveness, while the female labor force share is negatively correlated with competitiveness.⁶¹ As expected, larger firms with more capital intensive production are more competitive. Female participation rates seem to have a negative correlation with competitiveness. This may reflect relative differences in gender composition between manufacturing and service sector firms, where productivity tends to be higher in the former, and also within sectors, such as a potential sectoral bias in manufacturing sectors, where female participation tends to be highest in more labor intensive activities (e.g. apparel) and at the lower end of the value chain.

⁵⁸ The qualities of specific places, such as the benefits of agglomeration and the availability of a critical mass of skilled workers and knowledge-intensive activities feature heavily in contemporary research on firm competitiveness (Malmberg et al 2000).

⁵⁹ The 9 regions include Tbilisi (1), Adjara (2), Guria (3), Imereti, Racha-Lechkhumi and Kvemo Svaneti (4), Kakheti (5), Shida Kartli and Mtskheta-Mtianeti (6), Samagrelo-Zemo Svaneti (7), Samtskhe-Javakheti (8) and Kvemo Kartli (9). Regions 4 and 6 are each aggregated from two administrative divisions due to data constraints and following the methodology of the Georgian Statistics Office. The Autonomous Republic of Abkhazia is excluded from the analysis due to no data availability.

⁶⁰ To give a sense of the relative magnitude of the determinants of firm performance, we first specify a multilevel model that provides insights into the drivers of labor productivity. The constant term is significant because it is an ‘empty’ hierarchical model and only contains a constant term. It is the variance components that are used to estimate how different levels are associated with labor productivity, as presented in Table 5.4.

⁶¹ Regression results are not reported here but are available on request from the authors.

Box 5.1. The Drivers of Regional Differences

First-Nature Geography

Two measures of first-nature geography are: (i) the ‘ruggedness’ index based on the coefficient of variation of elevation in each “grid” in Georgia’s map, which is a proxy for accessibility and transportation costs; and (ii) climate proxied by average July rainfall. As the values of these indicators are implemented as time-invariant regional factors, random effects specifications are necessary to measure their associations with firm performance.

Second-Nature Geography

Agglomeration economies are expected to favorably impact firm capacity to compete by lowering costs through the sharing of infrastructure, facilitating logistics/transit, increasing interactions between suppliers and customers and providing a critical mass of complementary services, skilled human capital and competitive rivals to engender greater levels of performance.

Externalities from specialization, also known as *localization economies*, are measured as the level of own-industry regional specialization for each firm (i.e. the total employment in firms in sector j in region i as a percent of total employment in sector j). We use a relative measure that weights each of these shares by the national average for each sector. To assess urbanization economies, we employ indicators of *density* and *diversity*.

Population density accounts for interactions between people and firms within urban areas that support efficiency gains and knowledge spill-overs. We compare this measure with alternatives such as road density, to give an indication of the level of regional infrastructure. Policy makers view infrastructure (such as roads, power, communication and other utilities) as a core component of development, where an adequate

In a small country like Georgia, it appears that firm competitiveness, and likely the performance of the regional economy, benefit from agglomeration—and principally localization—economies. Several sets of regional characteristics are examined for their association and potential influence on the competitiveness of local firms⁶². Localization economies are found to be important suggesting clustering around a pool of knowledge, skills and infrastructure generates spill-overs that are beneficial for productivity growth. Each measure of agglomeration is found to be important when considered individually though neither diversity nor density matter when considered together with localization. When accounting for spatial spill-overs, it seems there are constraints on taking advantage of neighboring clusters. This corresponding to the 2009 World Development Report narrative, signifying that the three dimensions of density, distance, and division are fundamental for development and to firm competitiveness in Georgia. Investment in transit infrastructure that can reduce the cost and time of travel could be one solution.

⁶² Furthermore, in light of the unipolar structure of the Georgian economy, with Tbilisi at its economic center, we trailed a dummy variable to mediate the disproportionate effect this region may have on the results. However, the inclusion of the dummy variable did not alter the main results, and is omitted from the analysis.

quantity and quality are critical for competitiveness and international trade (World Bank 1994). Better endowments of infrastructure lower transactions, communications, and transport costs and ease market access. Both measures are highly correlated, so we retain population density to exploit its time variability.

The diversity index measures the sectoral mix of the regional economy and achieves a minimum value of 0 when total regional employment is concentrated in a single sector and increases with higher levels of economic diversity. Relatively high levels of diversity are evident throughout Georgia.

Labor Market

The proportion of the economically active population with post-secondary and higher education represents the quantity of skilled human capital available to firms. Unemployment is calculated using the 'strict' ILO criteria.

Business Environment and Investment Climate

The proportion of total regional employment in SMEs (fewer than 250 employees) is utilized to proxy for economic dynamism associated with small, entrepreneurial firms (Glaeser and Kerr 2009). The proportion of employment in local firms active in a knowledge intensive or high technology sector (KIS and HTM sectors⁶³), proxies for the regional technology and knowledge endowment. Tbilisi dominates due to the size of the population. The investment climate is proxied by per capita private investments where Tbilisi is again dominant.

Spatial Spill-Overs

The spatial lag of each variable helps assess the impact of inter-regional interactions and spill-overs on local firms. This complements the analysis of a region-specific factor with an examination of the influence of the same factor in neighboring (contiguous) regions.

First-nature geography is not a driver of firm competitiveness. Considering the role of first-nature geography, such as topographic ruggedness and climactic factors, suggests that it is important only for economic structure and initial conditions but firm competitiveness is associated mainly with second-nature drivers. And as Georgia continues to modernize and raise competitiveness this is only likely to continue.

The proportion of highly educated workers within each region is robustly productivity-enhancing, though not evidence is found for spatial-spillovers from neighboring regions with higher endowments of skilled labor. The skills endowment of a region is closely aligned its labor productivity and emerges as one of the main drivers of firm competitiveness. Spatial spill-overs, in contrast, are found to be negatively associated with a firm's labor productivity (although statistically insignificant). The direction of this association may show that while firm density, infrastructure, and regional wealth do generate spill-overs, there is no possibility of free riding on human resources in nearby regions. The absence of a skilled population is therefore a fundamental handicap for the performance of local firms.

⁶³ KIS and HTM sectors include: KIS (NACE codes 64, 72, 73) and HTM (NACE codes: 24.4, 30, 32, 33).

Table 5.4. Labor Productivity Heterogeneity

	(1)	(2)	(3)
Constant	7.943*** (0.13)	8.379*** (0.08)	7.977*** (0.11)
Variance			
Firm	1.862 (0.02)	1.859 (0.02)	1.638 (0.02)
Region	0.157 (0.07)		0.093 (0.05)
Sector		0.232 (0.06)	0.259 (0.03)
Variance partition coefficient			
Firm	9.2%	88.9%	82.3%
Region	7.8%		4.7%
Sector		11.1%	13.0%
No.	13,958	13,958	13,958
Log likelihood	-24,163.9	-24,187.1	-23,449.5
LR Test	1,887.7***	1,841.2***	3,316.5***
Groups	9	43	
Minimum number of firms	332	2	
Maximum number of firms	6,751	2,377	
Average firms	1,550.9	424.6	

Source: Author calculations.

Despite the high rates of unemployment in Tbilisi, the city is still likely to be a draw for the most highly skilled workers. Unemployment data should be treated with caution due to the way in which the Georgian statistics office records instances of self-sufficient farming as self-employment, the heads of households engaged in agriculture as 'individual entrepreneurs', and family members as 'unpaid family business workers', resulting in relatively low estimates for unemployment in rural environments. This appears to affect regions like Guria, which are characterized by relatively low unemployment rates, suggesting that workers are absorbed by the agricultural sector and by related low-productivity activities, and distorts the correlation between unemployment and competitiveness. The dominance of Tbilisi, which has the highest unemployment in the country, does the same, so that even though unemployment is negatively correlated with firm competitiveness, there are significant and also negative spatial spill-overs as neighboring regions find it difficult to attract away skilled workers from the capital.

High-income regions are where the most competitive firms are to be found in Georgia. We find that in addition to density and diversity, human capital rich and high-income regions provide the most fertile environment in which firms can thrive, according with the prescriptions of the 2009 World Development Report. Locations with more wealthy neighboring regions seem to be detrimental to competitiveness, suggesting constraints to benefiting from spill-overs in terms of access to resources.

There is a broadly negative association between firm competitiveness and social disadvantage, such as that experienced by the large minority and displaced populations along the Southern border of Georgia and other regions with relatively high rates of poverty. A wide range of social indicators, such as numbers of pension recipients, levels of infant mortality, and incidences of cardio-vascular disease were also evaluated. In most instances these additional data were only available for single years, and were treated a time invariant over the period. These factors also proved negative and significant suggesting the importance of demographic factors and of an enabling social and institutional environment. Reversing the marginalization of minority groups and

IDPs could be important for engendering virtuous circles of development, and provide the boost needed to reduce regional disparities. These results also reflect issues relating to a lack of agglomeration benefits, such as a critical mass of firms, both in the same sector (specialization economies) and diverse (Jacobian economies) sectors, and cultural (minorities and IDPs) and physical divisions (mountains) with key regional markets.

Size matters, especially in manufacturing, suggesting a “glass ceiling” on productivity growth for SMEs. While positive, the impact of knowledge intensive firms has a statistically insignificant impact on firm competitiveness; however the share of employment in SMEs, a typical indicator used to proxy for a vibrant, competitive, and entrepreneurial business environment—i.e. the small and medium firms that make important contributions to economic and social development globally—is negatively associated with firm performance. As manufacturing firms comprise a significant proportion of the dataset, it is possible that economies of scale predominate in this result. As SMEs tend to be most prevalent in less productive regions, their size may reflect barriers to growth, and represent a glass ceiling to firms becoming large. This is consistent with the finding in World Bank (2013) that firm productivity does not evolve over the life-cycle in Georgia as it does in other, higher value-added exporters.

C. Decentralization and Firm Competitiveness in Georgia

Despite the considerable progress that has been made, Georgia remains one of the poorest countries in the ECA region with a significant pending reform agenda. Persistent territorial disparities, high levels of poverty, a high incidence of rural subsistence agriculture and urban unemployment highlight the underlying economic, social and political challenges that threaten to stall the future development of Georgian regions (Japaridze 2010; World Bank 2013). Significant reforms across all regions are necessary if Georgian firms are to modernize and compete more widely, and for Georgia to begin to reduce the rampant trade deficit that is being accumulated. In particular, gaps in infrastructure, health and education, financial access and property rights need to be addressed. This will call for greater voice and better, more inclusive governance and strengthened public service provision, both in terms of territorial and demographic access and quality.

A fundamental issue for Georgia is that the system of governance has largely failed to make inroads towards the aspiration of greater local self-government, or address the identified regional disparities highlighted in our analysis (Jackson 2004). A critical question for the future of Georgia is how to resolve the significant regional cleavages that threaten the future socio-economic stability of the country, and undermine the competitiveness of Georgia’s firms. Addressing the limited autonomy and capacity, including key obstacles to effective governance, of local and regional government units, is now a major priority for the Georgian state.

The drive for better local governance, and a push for bottom-up development, is also part of growing global trend. Decentralization is increasingly seen as a strategy to engender social change and ensure the generation of an “economic dividend.” For Georgia, a principle objective behind the current State Strategy for Regional Development 2010–2017 (Government of Georgia 2010) is to create a favorable environment for the socio-economic development of the regions and improve living standards and conditions of the population. A core component is to strengthen local self-governance and to increase economic efficiency and democracy

through the de-concentration and decentralization of authority and decision-making to lower tiers of governance where appropriate. To do so, Georgia is putting in place significant efforts to redefine the constitutional, legal, financial and economic basis on which local self-government can be affected throughout the country with the implementation of a new Local Self-Government Code.⁶⁴

Decentralization, when well designed and successfully implemented, is an effective tool for tackling many of the issues that Georgia currently faces. Decentralized government systems can improve the transparency, accountability and the responsiveness of the public sector, by invoking greater levels of participation in local government decision-making and increasing representation of diverse interest groups at the local level to bring decision making processes and responsibilities as close to the people as possible, thus, intensifying pressure on governments to work more effectively. For supporting firm competitiveness and growth, the development of SMEs, and broader issues of job creation, poverty reduction, better public services delivery—such as that of local infrastructure, education, healthcare and social protection—decentralization is often also argued to be more efficient, effective, and targeted, given that it encourages the demand for good governance and for better quality of service provision.⁶⁵

While this can form a strong basis for sustainable local economic development, the process itself presents a range of political and economic risks.⁶⁶ There is a range of complexities and challenges associated with decentralization initiatives, including agency problems (especially where the process is top-down as in Georgia), institutional weaknesses and territorial competition, associated with important trade-offs between efficiency, inequality and competitive capacities. This risks compromising local capacity to deliver services because of lack of adequate resources. At the same time there have to be checks and balances for the central government to ensure regions spend sustainably and efficiently. The process therefore requires strong coordination and clear lines of responsibility between different tiers of government, and oversight from strong central governments to ensure accountability, transparency and fiscal discipline from local government units.

There is also a risk that fiscal decentralization is likely to disproportionately benefit the most prosperous regions. If resources flow to regions better endowed economically and in institutions, there is a risk of increasing interregional disparities and further marginalizing lagging and less-favored. As described by Rodríguez-Pose and Gill (2005), ‘poorer infrastructure, as well as smaller tax bases, less access to financial markets, less influence over the discretionary aspect of central government finances and fewer, or smaller, input and output markets, may lose the battle for some states before it has even begun’ (p. 413).

In light of the large and growing disparities between regions in Georgia, decentralization may lead a reinforcement of leading regions⁶⁷. Further downsides for lagging regions include a lower provision of public goods, due to an inability to maximize economies of scale, and greater potential for clientelistic practices by bureaucrats and stakeholders. Thus, the success of decentralization hinges on its design. In particular, policies

⁶⁴ Keating 1998; Rodríguez-Pose and Gill 2005.

⁶⁵ Von Braun and Grote 2000; Bardhan 2002; Klugman 1994; Agrawal and Ribot 1999; Ebel and Yilmaz 2002; Brenner 2004.

⁶⁶ Prud'homme 1995; Rodden 2002; Gill 2005; Felzenshötain and Portnov 2005, Dabla-Norris 2006, Cheshire and Gordon 1996; Martínez-Vázquez and McNab 2003; Ezcurra and Pascual 2008.

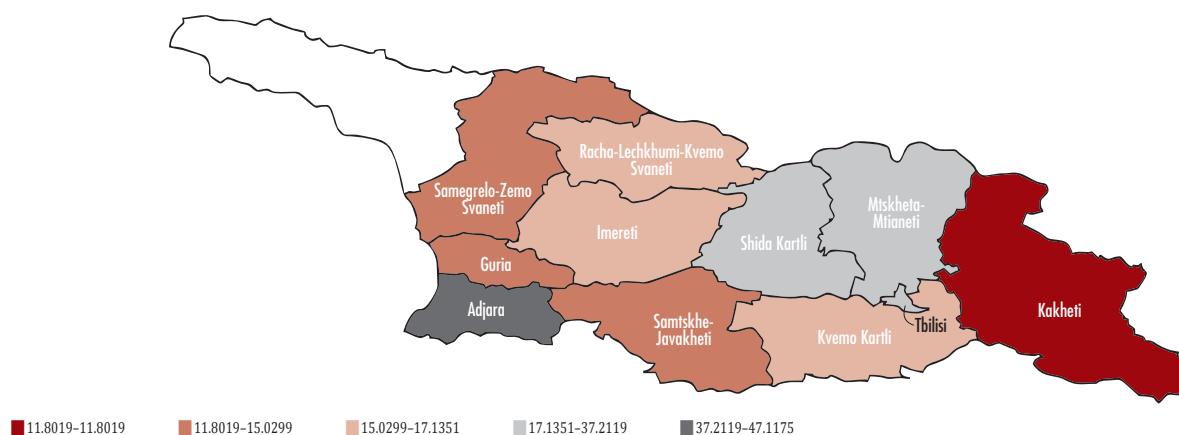
⁶⁷ Rodríguez-Pose and Krøijer 2009, Treisman 2000; Rodríguez-Pose and Gill 2005.

must be sequenced to match administrative, fiscal, and political powers at the right time in the process and must provide an adequate level of support to regions to carry out their growing responsibilities.

By extending the modelling framework to examine the influence of public expenditures at the regional level, we can arrive at a better assessment of the potential benefits of decentralization. As we have established, local government capacities and regional endowments seem to have a clear role in the divergent patterns of firm efficiency. Are current spending patterns configured in such a way as to be disparity enhancing, as opposed to disparity reducing? Moreover, what are the implications for future government policy, and more specifically, for the decentralization process in Georgia?

Figure 5.5. Public Spending by Region

Total expenses, per capita expenditure (GEL, 000's)



Source: Hardy and Rodriguez-Pose 2014.

Currently, the leading regions of Georgia tend to enjoy the highest levels of per capita funding, particularly Tbilisi and Adjara. Per capita expenditures across regions also vary widely, with four- and five-fold inter-regional disparities between the best funded (Adjara and Tbilisi) and worst funded (Kakheti) administrative divisions. These differences are further magnified at the municipality level, as noted in the World Bank's Public Expenditure Review (2014). In addition, the regional patterns differ according to the core component of regional public expenditure. Where transportation expenditures are particularly high (in per capita terms) in Tbilisi and Georgia's leading Western regions—Adjara in particular—education and social expenditures appear to be structured in a more balanced way, with some intermediate and lagging regions ranking higher in per capita expenditures. Social expenditures, in particular, are higher in the most lagging regions, in regions where you would expect to find the most need, largely because of transfers through pensions and the TSA. However, the overall balance tends to place upward pressure of existing disparities, with Tbilisi consistently outspending all other regions in per capita terms.

Regional public expenditures per capita are strongly associated with firm competitiveness. When we analyze the components of this spending, we find a range of factors that are conditionally correlated with labor productivity and the TFP of manufacturing firms. Core components such as transport expenditures are positively associated with firm competitiveness. Expenditure on subsidies and social protection are both also positively and significantly associated with firm performance, which may suggest that the ways in which Georgian regions support and incentivize local firms may prove to yield some benefits. However, we do not have data on the nature of subsidies spending within regions to test this claim.

While per capita public spending on education is not generally associated with firm performance, this finding is likely to reflect variations in the costs of education as well as local capacity and quality. As illustrated by Chankseliani (2013), rural disadvantage in education is a concern—81 percent of university students are from urban areas, which constitute over half the population—with an even wider urban-rural divide in the most prestigious higher education institutions in the country. In the long term this can only serve to curb the aspirations of the rural youth and to further regional disparities. As the costs of education are likely to vary widely per head, with remote regions likely to receive higher spending per head than schools in large agglomerations, this finding should be interpreted with caution. It may also reflect expenditure efficiency and local capacity.

Although some of the regional discrepancies may simply reflect differences in costs related to physical geography and inherited infrastructure and facilities, differences may also point toward a range of real regional concerns. It is also vital to ensure that the decentralization processes supports rather than undermines each of the four key pillars of local and regional development; the competitiveness of local firms, attraction of inward investment, development of a regional base of skilled human capital, and upgrading of local infrastructure.

Firm competitiveness is closely related to endowments of local infrastructure and human capital, and is responsive to public spending per capita. If decentralization is to be performance enhancing, regional governments need the power and resources to tackle the areas, by investing in infrastructure, education and public policies that help to reduce transactions costs for firms, allowing them to compete more widely, domestically and internationally.

Much of the progress made to date on decentralization in Georgia has not been part of a comprehensive strategy, also a problem for several other transition countries in the region. The current State Strategy for Regional Development provides a more solid and well-articulated program for decentralization, with the potential to create a solid foundation for future reform and development progress. This research and discussion has identified some key areas that need to be addressed in order to ensure that decentralization does not inadvertently harm particular regions, or compromise the competitiveness of local firms. Accordingly, if the decentralization process is to achieve its stated goals, including increased competitiveness and balanced socio-economic development throughout the regions, it will require some consideration of the following points:

- Firstly, and generally, the decentralization process requires effective, committed and empowered local and central government units with the sufficient capacity to coordinate and oversee the process, ensuring that the process is inclusive for all groups within the region.
- Secondly, and more specific to Georgia, having already made some progress with the vertical structure of government, resulting in more appropriate territorial divisions, better suited to addressing the needs of the region, and increasing autonomy with respect to carrying out public policies, measures need to be taken to maximize efficiency and develop the capacity of lagging and peripheral regions to administer public services and investments effectively. Divergences in the transparency, efficiency and accountability of regional governments must be managed to correct market failures, provide access to markets and manage economic growth and development. Responsibilities should only be decentralized in conjunction with specific plans to enhance the capacity of sub-national governments, especially in those regions lagging behind.

- Thirdly, the discrepancy between responsibility and resources needs to be better addressed with increased fiscal decentralization.
- Finally, the data show that there are significant divergences in current public expenditures per capita across regions, which serve to sustain or exacerbate, rather than ameliorate, existing inter-territorial disparities and the transfer system needs to be overhauled to better reflect these differences. In addition, as regions are granted greater autonomy to generate revenues locally as part of the decentralization program, divergences in capacities to generate revenues need to be monitored to support equalization across territories.

D. Conclusions

Georgia has made considerable progress in terms of economic growth, development and governance over the last two decades since independence, though trends are variable across the country. Strong performance on growth has been accompanied by strengthened institutions, opening up and success at increasing trade and foreign investment. However, longstanding territorial disparities have to be addressed. There are divergences in poverty, labor productivity, per capita spending and core investments, skills, infrastructure, and employment that suggest that Georgia's growth process has affected firms located in different regions in different ways. In particular, as Georgia seeks "export-led" growth and enhanced market access through improved economic ties with the EU, these disparities will continue to affect how the benefits of trade are shared geographically and across demographic groups.

Significant attention needs to be paid to building a better business environment in less-favored areas, so they can benefit from inward investment and productivity growth. Georgia has done outstandingly well on the Doing business index, which captures a small range of business environment characteristics—however the Doing business survey only covers Tbilisi. The analysis highlights that local expenditures, especially in transport infrastructure and human capital, significantly affect the competitiveness of Georgian firms in different parts of the country. Therefore, given the current endowments across regions, if global trade is to bring prosperity to peripheral or lagging regions, policy attention needs to focus on investment in public services to help increase firm productivity and allow businesses to grow, compete domestically and abroad, and benefit from economies of scale.

The ongoing decentralization process in Georgia also has implications for firm competitiveness and for regional economic development in general. The decentralization process does offer an opportunity to strengthen public participation, voice, and promote inclusive governance. Where successfully implemented, this process can support the specific needs of lagging regions and groups in Georgia, and improve the prospects for firms to compete and regions to develop. However, evidence tends to be mixed on whether impacts of decentralization are positive or negative, and suggests that the complexities of design, planning and sequencing are major stumbling blocks that require close consideration. Regional government units need to be able to diagnose and evaluate bottlenecks in the regional environment, including shortcomings in local socio-economic conditions, identifying

on the way appropriate actors and stakeholders to instigate reforms and balance the complex needs of the local territory.

Table 5.5. Main Policy Messages

Spatial inclusion calls for strengthened firm competitiveness throughout the country.	Stronger focus on access to and quality of public services in the region, particularly health and education, and infrastructure, will be important.
Job creation and support for small firms should be a priority, particularly in areas where unemployment is high (which includes the capital).	Supporting the SME sector will be critical for job creation and to strengthen regional opportunities and narrow disparities. The next chapter explores policy options in this context.
The question for policy is how the decentralization process could maximize the benefits while minimizing risks and avoiding the pitfalls.	Careful attention to sequencing reforms so that there is a balanced matching of power, responsibility and resources along with institutional capacity building.

CHAPTER 6: DRIVERS AND SUSTAINABILITY OF EXTERNAL IMBALANCES

Over the last twenty years, Georgia has run current account deficits that on occasion have surpassed 20 percent of GDP. Persistent current account deficits (CAD) have led to high external financing needs and to the country's net external liability position exceeding 100 percent of GDP, and to risk perceptions that have increased borrowing costs for firms and households. High capital inflows have also contributed significantly to the dollarization⁶⁸ of Georgia's financial system. Two thirds of loans taken in Georgia are in foreign currency; when assets are predominantly Lari-denominated, the risk of currency movements generating balance sheet effects is high.

Georgia's external accounts reflect challenges that can be addressed through a shift towards new, export-oriented and sustainable sources of growth. About two-thirds of Georgia's current account deficit is structural and is driven by low savings, high public spending during the crisis and its immediate aftermath which lowered national savings, and rapid consumption growth. Although small, the contribution of trade openness to the current account is nevertheless positive, reflecting the potentially important role of more focused policy support to improving export competitiveness and diversification. Although the high dollarization of the financial system dampens the effect, real exchange rate movements do impact net exports. However large capital inflows have led to a trend of real exchange rate appreciation that has been detrimental to the price competitiveness of Georgia's exports.

While Georgia has been successful at attracting foreign direct investment (FDI), which has largely financed the current account deficit, it has flowed mainly to non-tradables and has generated higher imports rather than exports. The predominance of FDI in the financial account lowers risks, though the structure of FDI needs to shift towards the tradable sectors, especially manufacturing and modern services, to generate sufficient export flows that can offset future profit repatriation. While in other developing countries, FDI inflows have both financed the current account deficit and contributed to reduce it via higher exports by foreign owned companies, in Georgia FDI has exhibited a high propensity to import, which has widened the current account deficit.

The objective of the assessment summarized in this chapter is to examine the determinants of the current account, assess the structure of its financing and its macroeconomic impact, and infer a policy path consistent with external sustainability and Georgia's growth ambitions. The rest of this chapter is organized as follows. Section 1 reviews basic trends in the current and capital accounts. Section 2 examines current and capital account determinants and the decomposition of the current account deficit (CAD) into structural and

⁶⁸ It's important to note, that dollarization has been declining in recent years. Since 2008, loans' dollarization decreased by 13.8 p.p. to 59.4% and deposits' dollarization—by 14.1 p.p. to 59.8%.

cyclical components. Section 3 presents an assessment of sustainability under different scenarios. The chapter concludes with key messages and policy implications.

A. Basic Trends: Building Up External Liabilities

The structure, financing and sustainability of the current account correspond directly to current and future patterns of growth and economic competitiveness. The current account balance (CAB) reflects the excess of domestic investment and consumption over domestic production, and is equivalent to how much the economy borrows from the rest of the world to finance that excess. A growing economy may need to borrow to finance high investment in which case a current account deficit now may be the source of higher growth, exports, and savings in the future. What matters are the underlying sources of the current account deficit. Whether it is driven by high public spending or private investment or by low private savings, how it is financed, and which sectors capital is flowing, all have significant implications for current account dynamics and for future growth and job creation.

Table 6.1. External Accounts

Million US\$, unless otherwise indicated

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Current Account	-384	-354	-710	-1,176	-2,009	-2,813	-1,134	-1,193	-1,840	-1,854	-951
In percent of GDP	-9.6	-6.9	-11.1	-15.1	-19.8	-22.0	-10.5	-10.2	-12.7	-11.7	-5.9
Financial Account	370	300	625	1,066	1,915	2,759	916	1,009	1,673	1,742	841
In percent of GDP	9.3	5.9	9.7	13.7	18.8	21.6	8.5	8.7	11.6	11.0	5.2

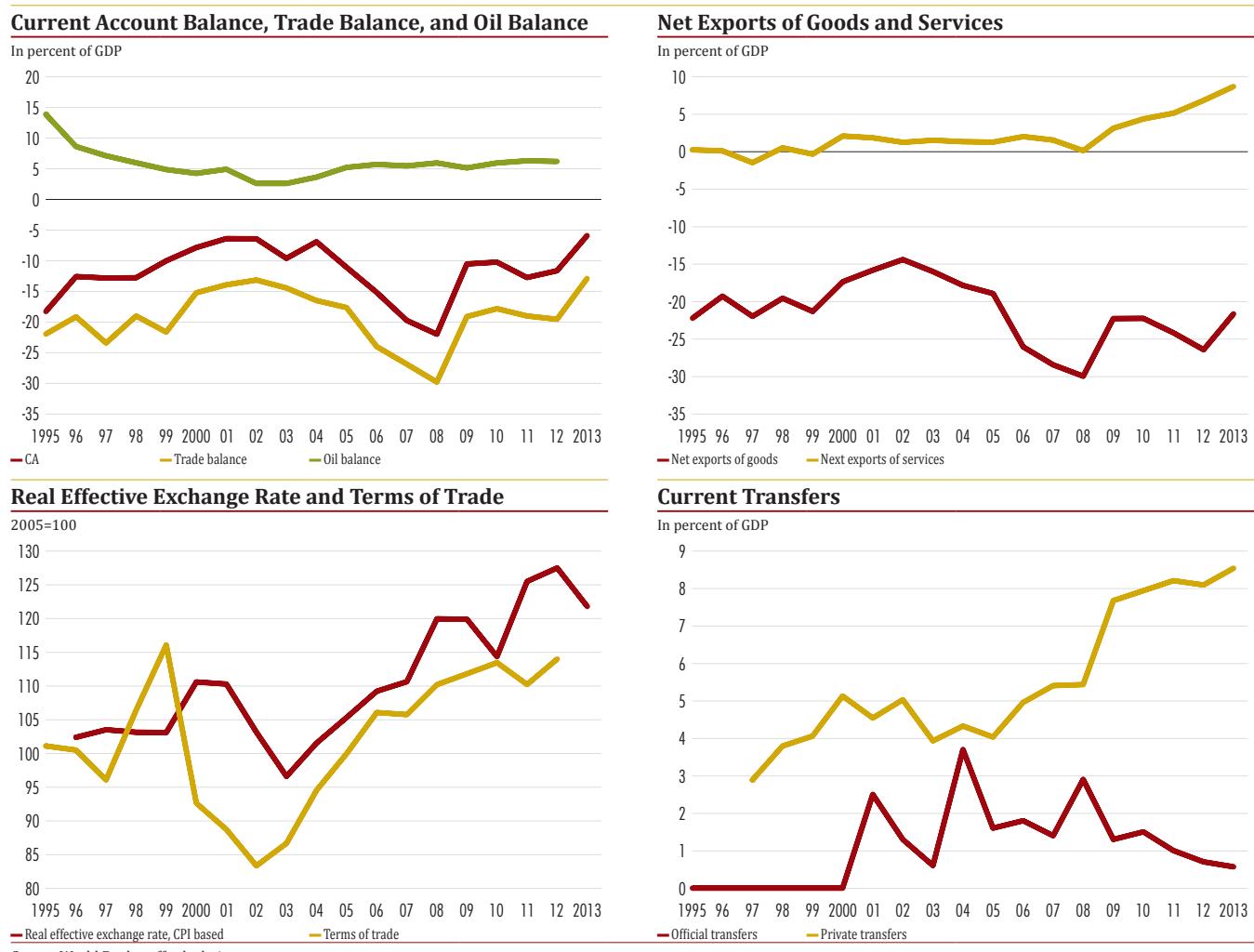
Source: Georgian authorities and Bank staff calculations.

Georgia's current account has been in deficit for nearly 20 years. The CAD peaked at close to 22 percent of GDP in 2008 following four years of high growth and a pro-cyclical fiscal policy supported by high FDI inflows. The 16 percent depreciation following the onset of the global economic crisis and the conflict with Russia in 2008, which had led to lower domestic demand, falling FDI, and a halving of the CAD to 10 percent by 2009, supported recovery in exports. As growth recovered on the back of high public spending and the currency appreciated in 2010 the CAD widened again to close to 13 percent in 2012 before contracting again in response to a sharp fall in growth and domestic demand in 2013 (Figure 6.1). The trade deficit has been driven by large increases in the imports of goods that more than offset growth in exports, which was concentrated in services. In fact the services trade balance reached 8.7 percent in 2013. Underpinning these trends is a steady real exchange rate appreciation since 2004, briefly interrupted by the 2008 crises, and supported by large capital inflows, which has been detrimental to export competitiveness.

The CAD also reflects an increasingly negative income balance, more than offset by growing current transfers, which are currently at 9 percent of GDP. Net income is driven mainly by the repatriation of profits by foreign-owned companies operating in Georgia. While this is consistent with patterns observed in Eastern Europe, since the investments underpinning the repatriated profits are mainly in non-tradables in Georgia, these do not reflect an improved capacity to manage the current account deficit in the future. Net income from abroad

fell by nearly 2 percentage points of GDP between 2004 and 2013. On the other hand current transfers, including both remittances and official transfers, have grown significantly, with private remittances catching up with official transfers for the first time in 2012 (Figure 6.1).

Figure 6.1. Georgia's External Imbalances



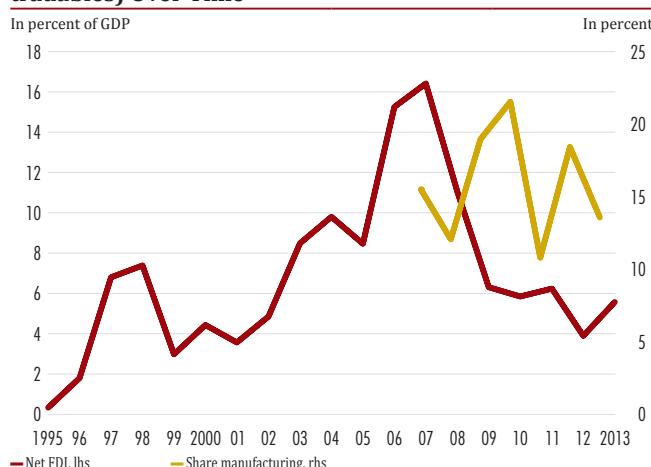
The volume, dynamics and structure of capital flows have important implications for risk, growth, future current account movements, and policy responses. A higher share of FDI relative to portfolio investments or loans is associated with lower vulnerability for a given CAD. However the destination sectors of FDI matter. The size of the capital inflows needed to cover the CAD is important: larger flows may require counter-cyclical measures or could have a detrimental impact on competitiveness by causing a real exchange rate appreciation or by pushing up interest rates; smaller flows have a better chance of being addressed through export growth.

While FDI has been the main source of financing for the current account, it has largely flowed to the non-tradable sectors, construction and services, and has in fact contributed to further widening of the deficit. Improvements in macro-fundamentals and the acceleration of the privatization process together with growing

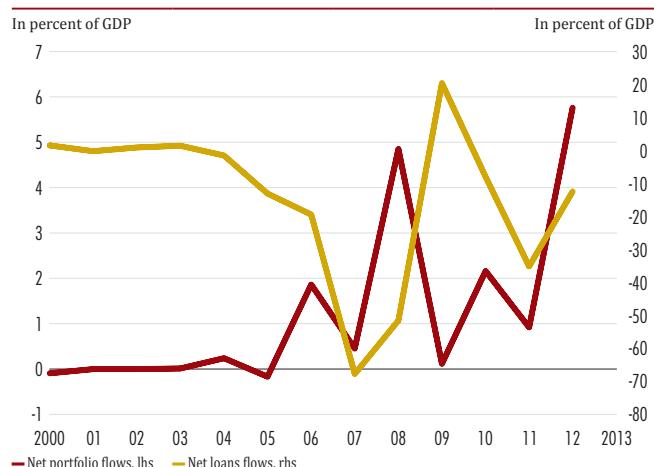
global liquidity during the great moderation resulted in a strong increase in FDI inflows before the 2008 crises. FDI inflows peaked in 2007 at almost 18 percent of GDP, while the average annual inflows over 2003–08 were nearly 12 percent of GDP. The global financial crisis more than halved these inflows between 6 and 8 percent of GDP after 2008. In 2013 FDI inflows reached a 6.3 percent of GDP, only slightly higher than the 10-year low. However FDI has largely been concentrated in non-tradables, particularly real estate, and services, and has been associated with a high propensity to import and low export orientation, which may partly explain higher productivity levels in other countries with similar or lower foreign investment levels.

Figure 6.2. Financing the Deficit

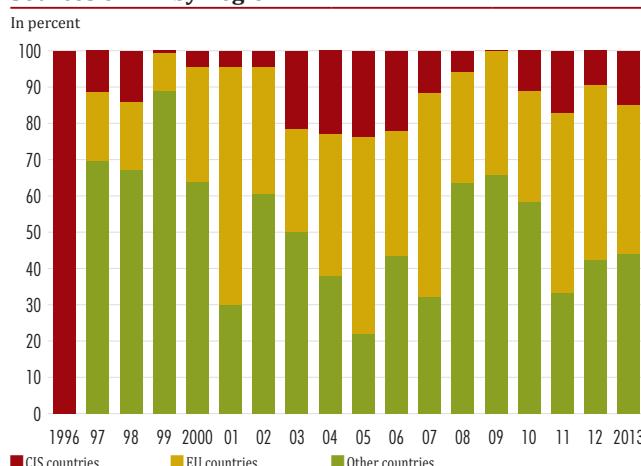
Net FDI and Line Graph and Sectors (Tradables and Non-tradables) Over Time



Net Portfolio and Net Loans (Bank & Corporate)

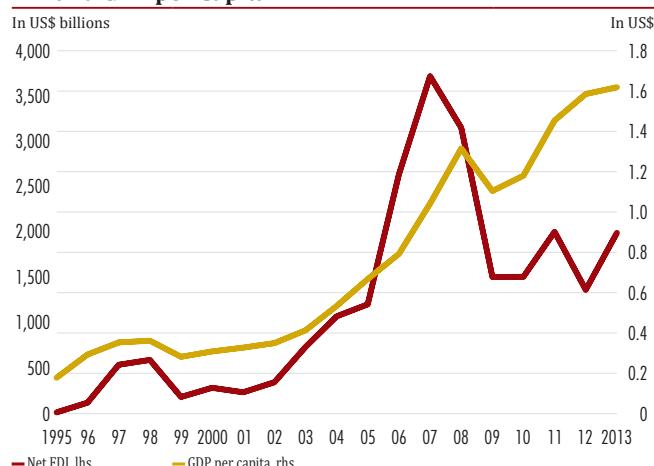


Sources of FDI by Region



Source: World Bank staff calculations.

FDI and GDP per Capita



Portfolio and lending flows have increased in recent years, contributing to the accumulation of net foreign liabilities. After a sharp drop during the crisis years, portfolio inflows reversed in response to Eurobond repayment, local bond market development, and lower yields in developed markets, standing at -0.3 percent in 2013. Net lending, especially corporate, picked up starting 2006 and remains high, at nearly 3 percent.

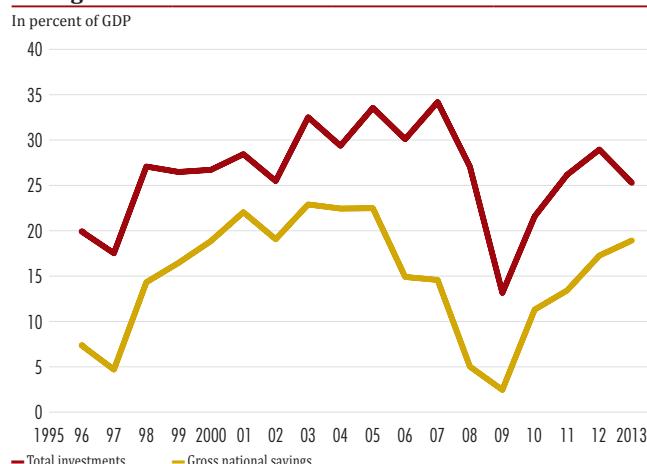
B. The Drivers: Brisk Growth in Credit and Imports Supported by High Capital Spending

The CAB is the excess of investment and consumption over domestic production. It can be thought of as the balance on earnings from abroad or as the sum of private and public sector savings net of private and public investment and consumption. The current account therefore is driven by private saving and investment decisions, fiscal policy and factors that affect overall export competitiveness.

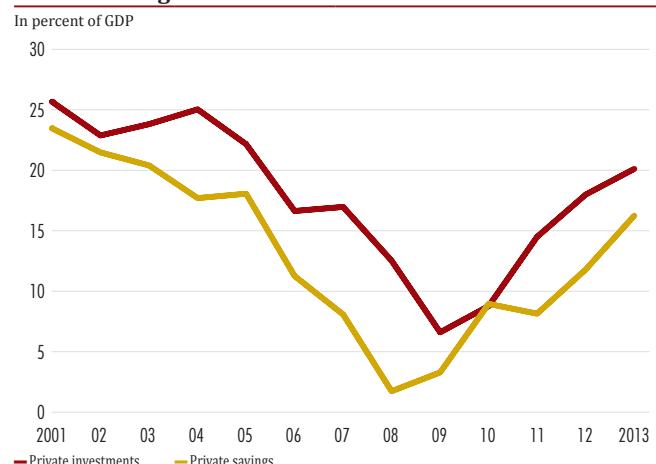
Falling national savings have contributed significantly to the CAD in recent years, a challenge given the investment needs implicit in Georgia's high target growth rates and the risks embedded in continued reliance on external financing. Savings rates fell sharply following 2004 and were negative in 2008, when the CAD peaked. Three main drivers of lower savings following 2004 have been identified as post-transition optimism about growth prospects, the sharp increase in domestic credit to the private sector over the decade of the 2000s,

Figure 6.3. Snapshot of Savings and Investment Trends in Georgia

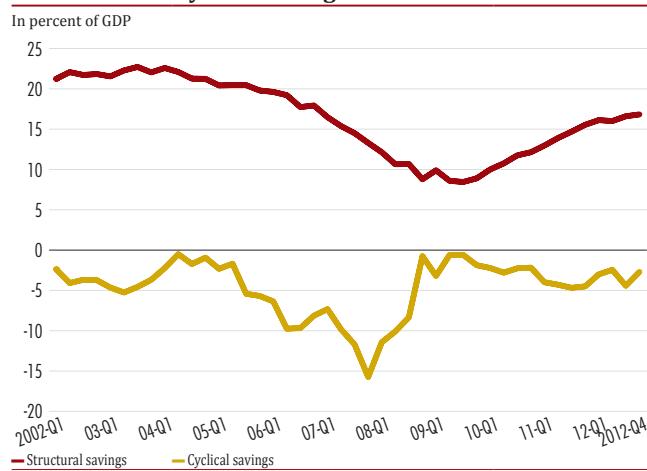
Savings vs. Investments



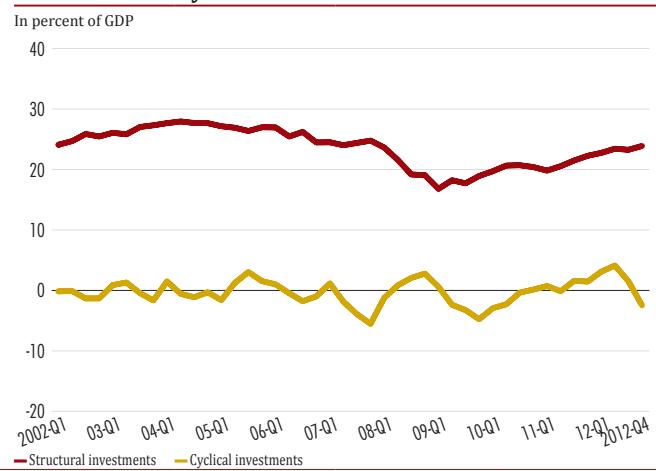
Private Savings vs. Private Investment



Structural and Cyclical Savings



Structural and Cyclical Investments



Source: World Bank staff calculations.

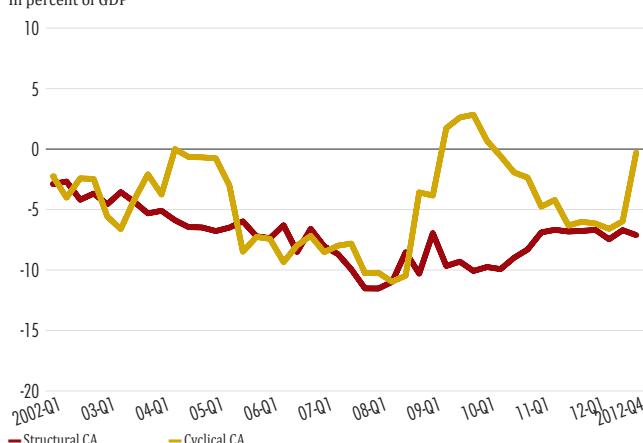
and an increase in the fiscal deficit between 2007 and 2010, largely due to the fiscal stimulus needed during the crisis years.⁶⁹ Moreover Georgia has had historically lower savings rates than other countries with similar demographic and income characteristics. Investment rates have been driven largely by FDI pre-crisis and by FDI and public capital spending after and have displayed less volatility. The reliance on foreign savings to finance investment and growth is not unusual for developing countries; however the low levels of savings is a matter of concern, given that investment rates have to be sustained or even increased if Georgia is to achieve faster growth. In fact a substantial increase in investment and national savings would be needed, even with faster productivity growth than the trend, to sustain long-run growth at an average of 5 percent.

The savings-investment gap reflected in the CAD is due to a combination of structural and cyclical factors. The structural component of the current account, that is the product of the country's income and demographic characteristics and the accumulated decisions of its agents in terms of consumption, investment and saving, is roughly six percent of GDP, while the cyclical component, due to conditions in the global marketplace, and the temporary behavior of domestic variables such as credit, aggregate demand, real exchange rates, and macro uncertainty, is about three percent of GDP.

Figure 6.4. Structural vs. Cyclical Components of the CAB and FDI

Current Account Balance

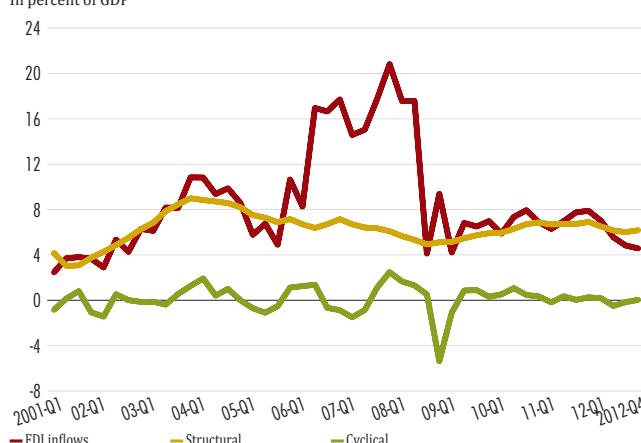
In percent of GDP



Source: World Bank staff calculations.

Foreign Direct Investment

In percent of GDP



Sources: Author's calculations and National Bank of Georgia.

Overall, the stage of development of Georgia explains a sizeable portion of the structural current account deficit. About half of the observed CAD is accounted for by two long term drivers that have remained stable over time and seem to set a lower bound for the deficit: Georgia's income (in ppp terms) relative to its main trading partners—convergence reduces the deficit—and the lagged fertility rate, which increases the deficit. The findings are consistent with theory. Developing countries with high investment needs are typically expected to be importers of capital. High dependency rates, and a smaller share of the population in the active working age group, are typically associated with lower savings rate and Georgia is aging rapidly relative to its income cohort.

Private credit growth, government spending, and FDI emerge as the most significant cyclical determinants of current account dynamics. Rapid growth in private credit to the domestic sector contributed to lower savings

⁶⁹ See "Georgia Rising," World Bank 2013.

and higher investment and to dollarization of the financial system; two-thirds of domestic loans are foreign currency denominated. Government spending—which peaked around the 2008 crises at 37 percent of GDP—reduced public savings and increased the CAD, while the post-crisis fiscal consolidation helped offset the impact of higher domestic demand on the current account. FDI in non-tradables has been associated with high imports, especially of capital goods and intermediates, and low export orientation.

Georgia has been successful at attracting FDI, whose structural component matches that of the current account at about 6 percent of GDP. Lower world growth rates and increasing global liquidity are the main “external” or “push” factors driving the structural component of FDI inflows. The results suggest that Georgia faced a competitive market for FDI and managed to secure substantial inflows. In fact Georgia attracted relatively high FDI even during the crisis years from countries whose growth rates were not significantly affected. The post-2004 reforms, Georgia’s high growth rate, reduced inflation volatility, and trade openness, were the significant domestic “pull” drivers of structural FDI. Shorter-run cyclical movements were also driven by push factors, such

Figure 6.5. Some of the Drivers of Reliance on External Financing in Georgia

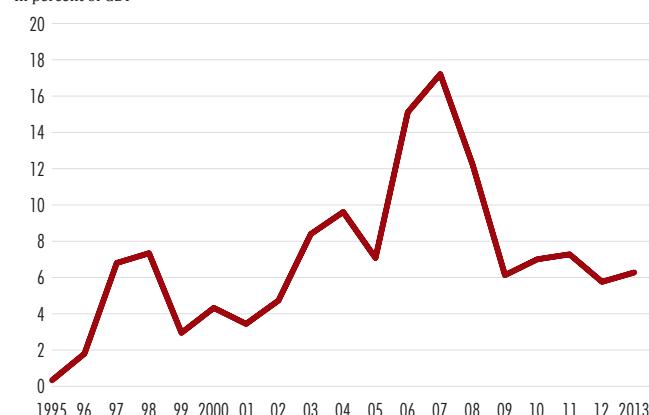
Private Credit

In percent of GDP



Foreign Direct Investment Inflows

In percent of GDP



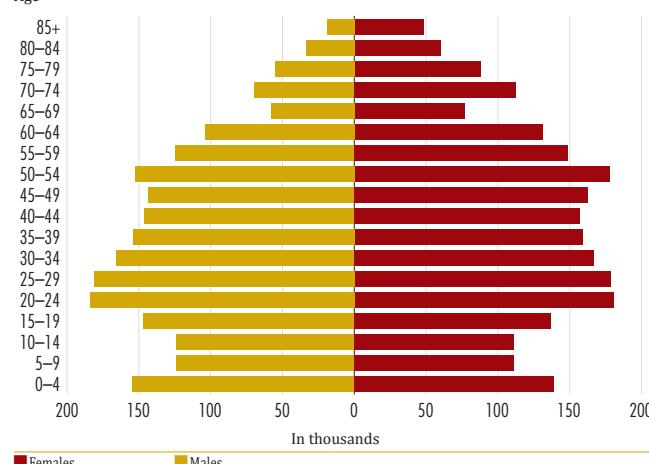
Government Spending

In percent of GDP



Population Pyramid

Age



Source: World Bank staff calculations.

as cyclical worsening of global growth and higher oil prices, and pull factors such as an increase in the output gap and lower public consumption spending.

While portfolio flows have also been driven by local profitability and macroeconomic fundamentals, global factors played a lesser role until recently. Though FDI benefited from the period of great moderation, marked by lower interest rates, high commodity prices, high global liquidity, low risk aversion, and strong global growth, portfolio flows to Georgia did not increase, mainly because of underdeveloped capital markets. It was only with the Eurobond issues and the development of local bond markets starting 2008 that Georgia started attracting portfolio flows, albeit at a time when most countries were experiencing outflows. Starting 2010, flows increased in response to greater liquidity and softening risk. Mainly however the interest rate differential—which persisted in spite of lower risk premiums and was larger than could be accounted for by observed exchange rate volatility—has increased the appeal of Georgian debt instruments. Equity markets remained undeveloped leading to mainly longer term portfolio bond flows. Macroeconomic fundamentals have been sound in terms of lower fiscal deficits, improved inflation, steady reserve accumulation, and term structure of external debt, which has also supported higher inflows.

C. External Sustainability

The accumulated impact of persistent current account deficits has led to a worsening net foreign asset position, currently -104 percent of GDP, leading to concerns about external sustainability. External vulnerability is exacerbated by the high levels of dollar debt held by firms and households. In this context, the sharp exchange rate adjustments that may result from sudden stops in capital inflows could have important balance sheet effects, calling for a painful adjustment to investment and consumption that would be detrimental to growth and welfare.

Here we define current account sustainability as the stable state in which the CAB generates no economic forces of its own to change its trajectory. In particular, the CAB is sustainable if continuation of the current government policy stance and private sector behavior does not result in future rapid policy shifts (such as, for example, a sudden policy tightening causing a large recession) and/or substantial changes in other economic variables, such as large exchange rate depreciations or interest rates hikes.

The objective is to generate alternative scenarios of the future paths of the NIIP. The question addressed is the following: given the identified determinants of the current account and the stock at end-2012 of foreign assets and liabilities of the country, what will be the future paths of NIIP under different scenarios? The methodology does not impose any steady-state assumption on the evolution of the economy.

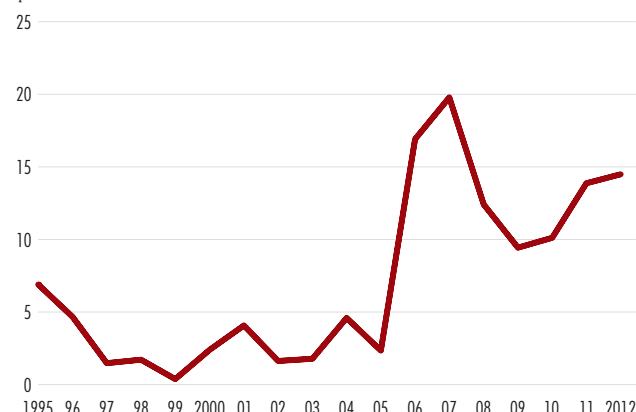
A fast expansion of credit growth could bring the CAD to almost 11 percent of GDP, and the NIIP to -140 percent of GDP. The scenario analysis for the effect of credit growth suggests that, allowing all other relevant determinants to evolve at the benchmark trends, the CAB contracts mildly in 2014 to reach 7.1 percent of GDP, increasing gradually thereafter, to surpass 8 percent of GDP in 2018. In the most expansive scenario, in which credit is assumed to grow at 16 percent per annum after 2015, the CAD would be close to 11 percent of

GDP. Analogously, the NIIP would increase to up to 130 percent of GDP, from 104 percent in 2013 under the most conservative scenario, in which credit is assumed to grow at half or 8 percent of GDP.

Figure 6.6. Key Balance Sheet Indicators

Short-Term Debt/Total External

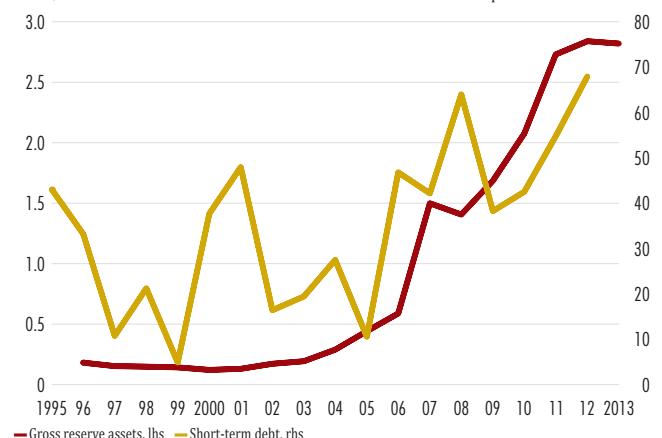
In percent of total external debt



Reserves and Short-Term Debt/Reserves

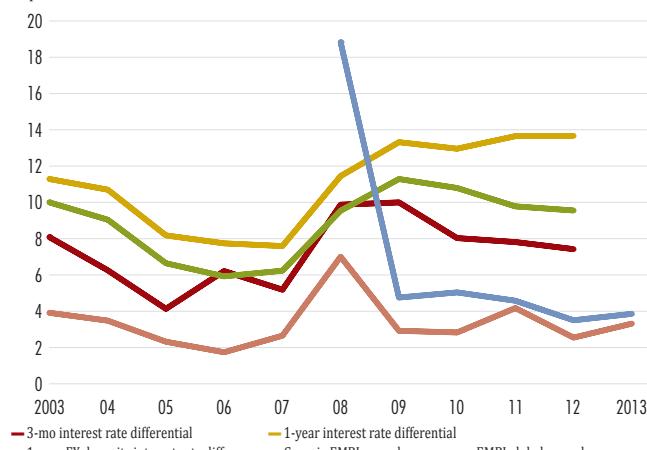
In US\$ billion

In percent of total reserves



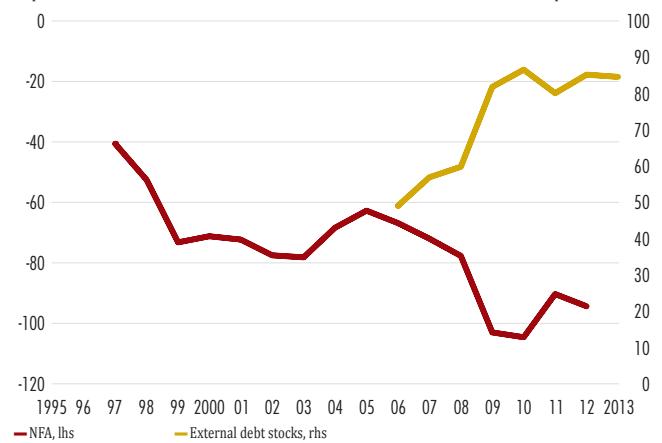
Interest Rate Differential and EMBI

In percent



Net Foreign Assets and Total External Debt

In percent of GDP



Source: World Bank staff calculations.

The real exchange rate channel to address external imbalances is weak. The comparison of the impact of different real exchange rate scenarios on both the CAD and the NIIP reveal that the real exchange rate only has a weak effect on the external imbalances. The projected CAB for 2018 under the assumption of the strongest depreciation is only one-twentieth of a percentage point. Similarly, the difference between implied NIIP is insignificant. This reflects both high dollarization and a need to strengthen export competitiveness, as well as the dominant role of non-tradables in current account dynamics.

The projected effects of GDP growth on the CAB and to a lower extent on NIIP, given a relative level of income are sizable. Under the benchmark path for GDP growth, the CAB would reach almost 9 percent in 2018, while the NIIP would reach -133 percent of GDP. On the other hand, under the assumption of stronger growth by

Box 6.1. Should the Level and the Composition of Georgia's Net Foreign Liabilities be a Source of Concern

Accumulation of large Net Foreign Liabilities, or analogously, a large negative NIIP can pose significant risk in terms of sustainability of large and persistent CAD. Accumulated negative NIIP directly leads to worsening of future CABs through larger income outflows. Moreover, higher negative NIIP also increases country risk and reduces the willingness of investors to finance parts of future CAD. Catao and Milesi-Ferretti (2013) recently documented in a cross-country study of external crises over the period 1970–2011 that crises risk increases with net foreign liabilities, and particularly so when these exceed 50 percent of GDP or 20 percent of its historical mean value. Moreover, they find that the composition of the NIIP also matters for vulnerability. Crises risk increases with the share of net debt liabilities in overall NIIP and suggested a (rough) threshold of 35 percent of GDP for the net debt liabilities as a signal of the crises potential.

Both gross and net liabilities increased significantly in nominal value over the last decade. Gross liabilities increased from below 5bn USD in 2004 to close to 22bn USD in 2012. As a share of GDP, NIIP temporarily improved over 2004–07 and expanded strongly from 2009, reaching -98.9 percent of GDP by end-2012.

The debt versus equity structure of net liabilities worsened over the crises period. The composition of the NIIP improved between 2004 and 2007, as the share of net debt liabilities in GDP was reduced from 45 percent in 2003 to 18 percent at the end of 2007, which, should have contributed to decrease Georgia's vulnerability to external crises.⁷⁰ Improvements in the relative structure followed from record levels of FDI, largely driven by the acceleration of the privatization process. However, this improvement was not long lasting. While both net debt and net equity increased strongly over the crises period, the speed of net debt accumulation was stronger and led to the rise in net debt to GDP ratio which reached 38 percent at the end of 2012. Although the share of short-term debt in the new debt increased more recently, given a dominant share of the short term assets in gross Georgia's assets, the maturity structure of the NIIP remains favorable (short-term net assets are below 2 percent of GDP).

The pace of recent NIIP accumulation, its current level and the relative structure indicate high risks for sustainability of the future current account deficits. An increased share of net debt in GDP implies a larger external exposure to global portfolio investors although the rollover/shifts in global sentiment risks are (currently) not high given the long maturity of the issued instruments. The reduction of non-resident investors' holdings of local currency government bonds in 2013 suggests that these risks are nevertheless present. High accumulated levels of net debt imply a limited role for debt instruments in financing the CAD in the short-run and signal the need for reducing CAD to the levels that can be primarily financed with net FDI inflows and net transfers. Given the expected worsening of the income balance in relation to debt servicing and profit repatriations, adjustment in the CAD requires stronger improvements in the trade balance).

1 percentage point higher than the WEO forecast, the projected CAD would surpass 9 percent in 2018, while the NIIP would reach -136 percent of GDP.

⁷⁰ Net debt liabilities are equal to the difference between the debt assets (portfolio debt, other investment debt and foreign exchange reserves) and debt liabilities (portfolio debt and other investment debt).

D. Conclusions

Georgia's current account is a symptom of the growth path taken since transition; sustainability calls for renewed focus on improving competitiveness. Georgia benefited from the 2004 reforms; it became and remains a competitive destination for FDI and has performed well in terms of growth. Capital accumulation and productivity growth has however largely been concentrated in non-tradables, which absorbs much of the FDI entering Georgia. These sources of growth, namely high credit growth fueled by foreign currency loans, high reliance on fiscal policy to manage even temporary shocks, and investment that is import-oriented rather than export generating, are not sustainable.

FDI has been responsive to Georgia's policy framework and to global market conditions, and has largely financed the current account deficit; however its impact on the evolution of the CAD has not been positive. Going forward, FDI is projected to remain at about 6 percent in the medium term, barring policy reversals or shocks, which is sufficient to cover Georgia's estimated structural CAD. International experience shows however that the beneficial effects of FDI inflows on the economy and on the CAD depend on their composition. In Georgia, most FDI has been directed to non-tradable sectors, exhibiting a high propensity to import and to generate net income and profit repatriation without offsetting increases in exports down the line. In other countries where foreign investors have targeted tradable sectors instead, such as Morocco or Poland, FDI has supported growth and narrowed the CAD. Investment promotion strategies should therefore focus on sectors with potentially high spillover effects in terms of productivity and competitiveness to the rest of the economy to support exports and job growth.

Recently, other and riskier sources of financing have grown in importance. Global deleveraging is likely to result in a reduction in bank and corporate flows. Higher portfolio bond inflows increase the vulnerability of Georgia's external sector due to the higher sensitivity to the risk-return calculus. It is therefore important to broaden the investors' base as diversified demand is important to minimize shocks. Higher participation of foreign investors in domestic markets is also beneficial for liquidity and competition which will help support the development of the long-term capital market. Better developed capital markets may support equity investment, suggesting an important area of reforms to focus on given concerns regarding the growing share of debt in external liabilities.

Although small, trade openness has helped improve the CAB, suggesting a potentially important impact of trade policy. Large FDI flows suggest that the income balance will remain negative in the medium-term and that improvements in the CAD would have to come from an improved trade balance. There are three main reasons why policies aimed at improving export competitiveness will be critical for reducing the current account deficit. First, though small, trade openness has had a significant and positive impact on the CAB. Second, while real exchange rate movements do have an impact on net exports this is weakened by the high degree of dollarization of the financial system and the reliance of firms on external financing, as well as by the limited development of the tradables sectors. Third, sustained capital flows have led to a trend of real exchange rate appreciation that has hindered competitiveness.

Policies to encourage savings and develop attractive local currency financial instruments will support de-dollarization and reduce the vulnerabilities arising from the CAD. Strategies need to be designed to

incentivize private saving through the development of a wider range of financial instruments, including for longer term saving. Pension reform would also support capital market development in the longer run. High credit growth has played a large role in widening the CAD, largely because of its composition. Two thirds of domestic loans are denominated in foreign currency, which constitutes a substantial risk for households and firms with currency mismatches in their balance sheets, for the banking system, and for the economy as a whole. Creating attractive saving instruments denominated in domestic currency will also support accessible credit and gradual de-dollarization of the financial system. Finally, in addition to supporting both savings and the financing of domestic investment through domestic resources, these policies will strengthen monetary policy channels and take some of the pressure off fiscal policy.

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