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The Case of Georgia

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Export Performance in Transition: The Case of Georgia

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Abstract: This paper examines export performance in Georgia in the process of transition from central planning to market oriented economy. Policy reforms undertaken with the support of the Bretton Woods institutions since the mid-1990s have made Georgia one of the most market-friendly economies among the Commonwealth of Independent States. However, the reforms have so far failed to transform the lopsided export structure inherited from the Soviet era in line with emerging opportunities for global economic integration. We conclude that orthodox liberalisation reforms are unlikely to improve export performance unless accompanied by concrete measures to redress supply constraints faced by export producers and to sustain their international competitiveness.

Keywords: Georgia; transitional economies; export performance; trade policy

JEL Classification: F1, F6, O2

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Export Performance in Transition: The Case of Georgia[1]

Introduction

Export performance is widely considered a key determinant of the success of economic transition from central planning to a market-oriented economy (Kaminski et al. 1996; MacBean 2000; Svejinar 2002; Boeri 2000). Of course, imports are the key link between foreign trade and economic welfare. But the ability to maintain uninterrupted import flows, which is vital for the sustainability of reforms, depend crucially on the ability to sell more products abroad. Moreover, restructuring and expansion of domestic production in line with comparative advantage in international trade is crucial for maintaining economic growth and employment expansion at higher levels than is permitted by domestic demand growth (Easterly et al. 2009). The latter consideration is particularly important for smaller transition economies such as Georgia.

Policy makers in Georgia have become increasingly concerned that market-oriented policy reforms vigorously pursued over the past decade have not brought about rapid export growth. The purpose of this paper is to analyse Georgia's export performance against the backdrop of comparative export performance of other transition economies in Europe and Central Asia with a view to informing the policy debate on designing the future export development strategy. The key theme running through the paper is the complementary role of domestic policy shifts and the ongoing changes in world trade patterns in determining trends and patterns of exports.

The focus of the paper is solely on merchandise exports. Services exports are not covered because of the unavailability of required data. Georgia of course has ample potential for promoting services trade, in particular tourism and services related to entrepôt trade based

[1] This paper draws on a study undertaken for the South Caucasus and Central Asia Department of the World Bank. We are grateful to Kazi Matin for sponsoring the study and for his comments on the original report. Comments and suggestions by the referee of this journal are also gratefully acknowledged.

on its importance as a transportation corridor within the region. An assessment of these opportunities and identification of the related impediments requires a separate study based on a systematic compilation of fresh data.

The analysis is based on official export data (based on Georgian customs record), which are also readily available from the UN Comtrade database. It is widely believed that mirror statistics (data compiled from importer records) provide a better coverage of trade performance of developing countries, given the weak data reporting system in these countries compared to better data recording system in importing countries which account for the bulk of their exports. However, this argument is not valid for Georgia given its role as a transhipment hub for the neighbouring countries, particularly in the trade of oil and natural gas. Our comparison of aggregate Georgian official export data and mirror data show that the latter exceed the former by a wide margin which cannot be reasonably ascribed to data reporting errors alone. When oil and gas (SITC 3) are excluded, the two series move very closely. This comparison justifies the use of readily available Georgian data.

The paper is organised as follows. Section 2 develops a typology of opportunities for latecomers to export-led growth in the context of ongoing changes in global trade patterns and international production. Section 3 provides an overview of the reform process and the investment climate. Section 4 examines export performance, placing Georgia's performance in a regional and global context. This section also examines the degree to which Georgia over- or under-exports to major trading partners in the vicinity and beyond, using the latest methodological innovations in the gravity model. Following a stage-setting survey of trends and patterns of export performance, it probes changes in the commodity mix and characteristics of emerging export patterns, the geographic profile of exports, paying particular attention to reorientation toward Western markets. The key findings are summarised and policy options are discussed in the final section.

2. Export Opportunities for Latecomers: A Typology

In analysing market opportunities for exports from developing and transition economies, it is useful to distinguish between three different product categories: (1) 'resource-based' manufacturing or manufacturing activities which involve further local processing of material previously exported in raw state; (2) light (labour-intensive) consumer goods (e.g. clothing, toys, shoes, sporting goods); (3) component production and assembly within vertically integrated production systems.

A resource-rich country (like Georgia) has considerable room for the expansion of exports in the first category. However, quite apart from the obvious limits which would eventually be set by the resource endowment in a given country, there are other constraints on export success in this arena. For instance, world demand growth for resource-based manufactures has proved to be much slower than that for the other two product categories. Also, some processing activities, particularly those in the mineral and chemical industries, are characterised by high physical and/or human capital intensity and may not therefore be suitable for location in a low-income country. A further major deterrent is cascading tariff structures in industrialized countries, which still provide heavy effective protection to domestic processing industries. Insecure property rights in resource-rich developing countries also may act as a deterrent to investors in large, capital-intensive projects.

These constraints notwithstanding, there are some product areas where there are significant opportunities for successful export expansion. One such product line is agro-based processed food. The past three decades have witnessed a notable compositional shift in world food trade. The relative importance of 'classical' food products (coffee, tea, sugar, cocoa and so on) have sharply eroded as a result of the rapid expansion of trade in products such as fresh fruits and vegetables, poultry, fish and dairy products, which are exported after being subjected to technologically sophisticated processes ('processed foods') (Athukorala & Jayasuriya 2003; Jongwanich & Magtibay-Ramos 2009).[2]

Powerful forces on both demand and supply sides have underpinned this structural shift. On the demand side, 'internationalisation of food habits' -- the increased importance of imported processed items in consumption patterns in developed countries as well as among large sections of the populace in many developing countries -- appears to play a key role. Factors such as international migration, the communications revolution and international tourism have contributed to this phenomenon. This significant demand-side impetus seems to have been supported by important supply-side developments such as improvements in food technology, refrigeration facilities and transportation that have made various processed food products, which are generally highly perishable, internationally tradable. Georgia is well placed to benefit from this structural shift in world food trade given its rich agricultural resource base, and ample availability of labour in the rural economy.

[2] The term 'processed food' as used in this paper refers to food items which undergo substantial processing in the country of origin before exporting, and are typically high value and subject to increasingly more stringent food safety standards. Widely used alternative terms are 'ready-to-eat food' and 'high-value foods' (Athukorala & Jayasuriya 2003).

Export opportunities in processed food deserve special attention for a number of reasons when considering export development policy options for agricultural resource-rich countries (Athukorala & Jayasuriya 2003, Diaz-Bonilla & Reca 2000). First, income and price elasticities of demand for processed food is much higher compared to most traditional primary agricultural products. Therefore diversification of the export mix into this commodity category can bring in faster export growth combined with significant terms of trade gains.

Second, the final stages of food processing is labour-intensive, in contrast to the production processes of resource-based products (such as minerals and timber) where capital and raw material costs dominate, and factor substitution appears to be largely towards greater capital intensity at the expense of raw material costs. This implies that the expansion of the processed food sector can have a strong positive effect on employment generation in the typical labour-surplus developing economy.

Third, in terms of potential net balance of payments implications (net export earnings) and addition to national income, processed food appears superior to 'conventional' manufactured exports. Most conventional manufacturing exports from these countries are based on simple domestic processing of imported inputs. Processed food products typically have a greater domestic input content, and hence a greater domestic value added. Finally, the expansion of these exports is a powerful vehicle for linking the rural economy in a positive way with the on-going process of economic globalization.

For the typical developing economy, labour-intensive consumables (such as clothing, footwear, toys and sporting goods) are generally considered the natural starting point in the process of export-led industrialisation. In this product group, market potential for goods that are made to local specifications using local inputs is extremely limited. Such goods account for only a small and shrinking share of manufactured exports from developing countries. Export success depends crucially on the country's ability to enter the fast-growing and highly competitive markets for *made-to-order* products (Keesing 1983; Gereffi 1989; Scott 2006). It is indeed along this path that the East Asian newly industrialised countries (NICs) and more recently China made strides at the early stage of their economic rise. As the experiences of these countries have clearly demonstrated, a country's competitiveness in these markets depends on an amalgam of cost and non-cost factors, but relative unit labour cost (wages adjusted for labour productivity) is a key driving factor of inter-country differences in export success.

There may, however, exist unexploited opportunities for even relatively high-wage countries to enter specific segments of these markets based on competitive advantages arising from geographic proximity and other specific logistic advantages which cut delivery time and cost. An important illustrative case is the rapidly expanding markets for fashion garments (casual wear, lingerie and intimate wear) in which retailers require manufacturers to replenish orders much more frequently (even on a weekly basis) than in the case of 'traditional' garments. In these markets exporting firms in low-wage countries in proximity may have a distinctive competitive advantage, if these countries' wages are relatively high by the developing-country standards (Abernathy et al. 2006; Pickles and Smith 2011). The relative importance of geographical proximity (and other sources of logistic cost) over the relative labour cost advantage in determining export competitiveness in these markets seems to have gained added impetus from the termination of the Multi-fibre Arrangement and the integration of clothing (and textile) into the General Agreement on Tariffs and Trade (GATT) in 2005. Buyers are now free to source clothing in any amount from any country and suppliers are similarly free to export as much product as they are able, subject only to a system of national tariffs, nontariff barriers, and WTO-sanctioned safeguards. Thus the importance of the proximity advantage relative to the labour cost advantage will grow even greater as the retailers raise the bar ever higher on the responsiveness and flexibility required of their suppliers.[3]

Global spread of component production and assembly within vertically integrated international industries ('international production fragmentation' or 'offshoring') has been another important feature of the international division of labour since about the late 1960s. The process was started by electronic MNEs based in the USA in response to increasing pressures of domestic real-wage increases and rising import competition from low cost sources. The transfer abroad of component assembly operations now occurs in many industries where the technology of production permits the separation of labour intensive components from other stages of production. Assembly operations in the electronic industry (in particular assembly of semi-conductor devices, hard disk drives, and so on) are still by far the most important. The other industries with significant assembly operations located in developing countries are electrical appliances, automobile parts, electrical machinery, optical

[3] Pickles and Smith (2011) provides an in-depth analysis of changing geographies of trade and production in the European clothing industry following the MFA termination, with a specific focus on increasing regionalisation of clothing trade and the resultant increase in exports from the low-wage countries in East-Central Europe to the core European markets.

products, musical equipment, watches and cameras. In general, industries that have the potential to break up the production process to minimise the transport cost involved are more likely to move to peripheral countries than other heavy industries (Jones and Kierzkowski 2001; Yeats 2001). There is evidence that trade based on global production sharing, that is trade taking place within global production networks, has been growing at a much faster than total world manufactured trade.[4] Historically developing-country engagement in this form of international exchange has been heavily concentrated within the East Asian region. However, the recent years have seen a notable geographical spread of production networks in Europe, opening up opportunities for the relatively low cost countries in the European periphery to join the value chain of multinational enterprises located in the mature European economies (Lankes and Venables 1996, Kaminski and Ng 2008 and 2010; Curran and Zignago 2012).

In the early years, global production sharing was predominantly a two-way exchange between home and host countries; components were exported to the low-cost, host country for assembly and the assembled components were re-imported to the home country for final sale or further processing (as in the case of electronics). Over the years, production networks have evolved to encompass multiple countries in different stages of the assembly process. Today, product fragments will typically have gone through multiple border crossings before being incorporated into a final product. As international supply networks of components have become firmly established, producers in advanced countries have begun to move final assembly of an increasing range of consumer durables (such as computers, cameras, televisions, and automobiles) to overseas locations to be physically closer to final users and/or to take advantage of inexpensive labour.

Production sharing enables countries to specialise at a given slice of the production process since parts and components, capital and production technology are mobile within global production networks. It may be that workers in a given country tend to have different skills from those in another country, or the skills required in each production block differ so that a dispersion of activity could lower marginal production cost (as in the Ricardian model). Alternatively, it may be that the production blocks differ from each other in the proportion of different factors required, enabling firms to locate labour intensive production blocks in

[4] Through a disaggregation of OECD import data, Yeats (2001) found that the share of fragmentation-based trade (parts and components) accounted for 30% total manufacturing imports of OECD countries in 1996, compared to around 15% in the mid-1980s. According to estimates reported in Athukorala (2011), between 1992 and 2000 the share of these products in total world manufacturing exports and exports from developing countries increased from 20.7% to 25.4%, and 19.2% to 32.0% respectively.

countries where productivity-adjusted labour cost is relatively low (as in the Heckscher-Ohlin model). In each case, differences in factor proportions among different parts of the production process permit global production sharing to lower marginal costs of production. But the ability of a given country to link the value chain does not depend on the availability of labour and relatively low wages alone. Cross-border spread of production activities involves new fixed costs of establishing 'services links'; arrangements for connecting and coordinating activities into a smooth sequence resulting in the production of the final good. Thus, a whole range of factors impacting on the business climate are important in attracting FDI and other mobile inputs. Moreover, the quality of labour required for most 'unskilled' tasks within the global value chain is generally higher than what the average worker in most labour- abundant countries could offer (Feenstra 1998; Helpman 2011, Chapter 6).

3. Policy Setting

At the time of independence in 1991, Georgia was one of the most prosperous areas of the former Soviet Union with a sufficiently developed industrial base. However, the political turmoil and the loss of preferential access to the Council for Mutual Economic Assistance (COMECON) markets had a catastrophic effect on Georgia's economy. Between 1990 and 1994, GDP and the volume of industrial production contracted by 72% and 84%, respectively. In 1994 domestic inflation was around 20,000% (Kaminski et al 1996).

In the second half of 1994, the government began to pay attention to economic and institutional reforms in close cooperation with the IMF and the World Bank. The reform process continued through the end of 1998. As a result, Georgia returned to growth and exit from the hyperinflation spiral. Trade policy reforms undertaken during this period enabled Georgia to become a member of the World Trade Organisation (WTO) in 2000. Economic recovery was not, however, accompanied by significant export-reorientation and hence the economy was hit hard by the Russian economic crisis of 1998-99. The next two years were marked by rampant cronyism, corruption and economic mismanagement (Ismailov & Papava 2008).

Public discontent with the dismal economic conditions resulted in the Rose Revolution in November 2003 (Jones 2012, Lanskoy & Areshidze 2008; Papava 2006). The new government which came to power with landslide majority in January 2004 embarked on sweeping economic and institutional reforms aimed at reorienting the government and the economy towards privatisation, freeing of domestic markets, combating corruption and

stabilising the economy though sound fiscal and monetary management. Georgia signed a Trade and Investment Framework agreement with the US in 2007, followed by a free trade agreement with Turkey in 2008.

Georgia successfully used the WTO accession as a vehicle to significantly dismantle trade barriers and to legally bind tariffs at reasonable low levels, close to the current applied rates (WTO 2009). By 2009 average applied tariff rate (unweighted) was 1.4% with a bound rate of 7.4%; and 96.4% of manufacturing tariff lines 41.8% of agricultural tariff lines were free of duty (at the 6 digit level of the Harmonised System). In terms of these criteria, Georgian foreign trade regime remains one of the most liberal among all transition economies in Europe and Central Asia (Table 1).

Table 1 about here

Trade opening coupled with wide-ranging domestic policy reforms which marked a clear shift from the plan to market made Georgia one of the most market-friendly economies among the Commonwealth of Independent States (CIS) (Kaminski 2009). The World Bank's 2013 *Doing Business* report ranked Georgia as the world's 9th most easy economy to do business, in the same league as countries such as South Korea and Australia, and ahead of Finland, Sweden and Canada (World Bank 2012). It has been among the top ten percent of countries covered in the report, with a continued improvement of its relative position among them, ever since the Doing Business ranking began in 2004. The World Bank's *Anti-corruption in Transition 3* report placed Georgia (and the Slovak Republic) among the countries showing the most dramatic improvement in the struggle against corruption (Anderson & Gray 2009). Georgia is fully open to foreign investment in all sectors without any restriction on equity ownership (World Bank 2010).

The impressive market-oriented reforms have not, however, been accompanied by economic stabilisation to ensure competitiveness of the tradable goods sector. The real exchange rate (RER) has significantly appreciated throughout the post-Rose revolution years compared to the first phase of reforms during 1995-1998 (Figure 1). During 2004-2008, rigid peg of the lari to the US dollar, which led to its appreciation vis-a-vis the currencies of other major trading partners, was the main source of (mild) RER appreciation. Domestic inflation remained at modest levels during this period. In mid-November 2008, the lari was devalued by about 17% against the dollar. Since then the National Bank of Georgia has permitted some exchange rate flexibility. However the real exchange rate has continued to appreciate owing

to high domestic inflation and depreciation of the major trading partners' currencies at a faster rate than the rate of depreciation of the lari against the dollar. During the period 2003-2010 the real exchange rate has appreciated by about 20% compared to the average level during 2000-2003.

Figure 1 about here

Georgia's ability to reap gains from economic reforms has also been constrained by the continuing political tension with Russia and domestic ethno-political conflicts in which ethnic minorities are taking advantage of Russian patronage. In August 2008, Russia invaded Georgia and war broke out over the breakaway region of South Ossetia. The conflict resulted in damages of approximately US$1.2 billion to the Georgian economy. The quick US response (of assistance worth US$1.06 billion) combined with a Stand-By-Agreement with IMF (US$750 million) helped avert economic collapse. But Russia's recognition of South Ossetia and Abkhazia and its preparedness to use military action undermined business confidence and created a stumbling block to Georgia's aspiration of stronger economic links with the West. Georgia's exports suffered from the trade embargo imposed by Russia in 2006 and extended in 2008 (EC 2011).

4. Export Performance

Overall Trends

Total merchandise exports from Georgia (measured in current US$) increased from about US$200 million in 1996 to over US$460 million in 2003 at an average annual rate of 14.4%, with sharp fluctuations (Table 2). The rate of export expansion during the post-Rose Revolution years until the onset of the global financial crisis was faster (27%) and steadier. Total export value showed a three-fold increase (from US$461 million to US$1498 million) between 2003 and 2008. Exports contracted sharply in 2009 (by 34%) following the onset of the global financial crisis, but bounced back swiftly in 2010. Georgia's share of exports in total world merchandise exports (net of oil, gas and metals) doubled from an average of 0.004% during 1995-2003 to 0.008% in 2004-2008 as well as 2008-2010.

Table 2 about here

Table 3 about here

Data reported in Table 3 place Georgia's export performance in a comparative perspective with other transition economies in Europe and Central Asia. The focus is on exports net of oil, gas and metals to ensure inter-country comparability. Overall, Georgia's performance compares well with the countries in the Commonwealth of Independent States (CIS) (newly independent states of the former Soviet Union) including the three Baltic States (Estonia, Latvia and Lithuania) which recently became members of the European Union. Georgia has performed particularly well compared to its two neighbours in the Caucuses, Armenia and Azerbaijan. Notwithstanding the 'above-average' performance, Georgia still accounts for a mere 0.2% of total non-oil exports of all transition economies in Europe and Central Asia. Export performance of the seven transition economies in Central and Eastern Europe (CEECs) have generally been superior to Georgia and other CIS countries. This is understandable because they had less restrictive planning mechanisms during the Soviet era, were less dependent on regional trade than CIS countries, have better infrastructure for foreign trade and better contacts in the West including easy access to the European markets as new members.

The degree of trade orientation of the economy, measured as total trade (imports and exports of goods and services) as a percentage of GDP, has increased rapidly between 1999-2000 and 2009-2010 from about 60% to 83% (Figure 2). This is accounted for by export expansion, but also rapid import penetration during 2003-2008.

In Figure 3, Georgia's export orientation is compared with that of other countries in the region between 1999-00 and 2009-10. Countries tend to trade more as they become richer, but at a decreasing rate. In this figure, the actual level of export orientation of a given country is compared with the level one would expect to reach for its economic affluence measured by gross domestic product (GDP) per capita. The latter is estimated by regressing export-to-GDP ratio on the log of GDP per capita as well as its squared value for a balanced panel of 157 economies. Relative to countries at similar levels of per capita income, Georgia remains an under-exporter even though its degree of export orientation increased by more than 11 percentage points between 1999-2000 and 2009-2010.

Figure 2 about here

Figure 3 about here

Direction of Exports

During the Soviet era nearly all exports from Georgia were directed to Russia and other Soviet republics. Over the past decade, export to Russia has declined continuously in absolute terms and as a share of the total, eventually collapsing in 2007-2008 because of political conflict (Table 4). Exports were initially redirected mostly to other transition economies in the region and Turkey. The share of total exports to Armenia and Azerbaijan increased between 2004 and 2008, but fell in 2009-2010. Georgia's foothold in the rapidly growing BIC (BRIC minus Russia) was weak historically, although the data for 2010 indicates an uptick. There is no evidence to suggest that the government's aspiration of reorienting trade towards Western Europe and the United States has materialised yet; their combined share on average has remained at a little over 20% both during 1998-2003 and 2004-2010.

Table 4 about here

To examine Georgia's relative performance in its major export markets we undertake an econometric analysis using the gravity modelling framework. The explanatory variables used in our trade equation are the standard determinants of bilateral trade: GDP and per capita GDP of Georgia's trading partners, distance, contiguity, common language, common colonial power, average export-weighted tariff, and remoteness.

The model is estimated using a new methodology proposed by Helpman, et al (2008) which involves a two-stage estimation procedure that generalizes the empirical gravity equation by taking into account the extensive margin (the decision to export from country j to country i), and the intensive margin (the volume of exports from j to i, conditional on exporting). The first stage consists of a Probit regression that models the probability that country j exports to country i. The second stage is a gravity equation estimated in logarithmic form. This two-stage procedure aims at correcting two potential problems present in estimations of the gravity equation: The first is a standard selection bias resulting from the need to drop the observations with zero trade when estimating logged gravity models. The second is a bias due to the potential unobserved firm level heterogeneity resulting from an omitted variable that measures the impact of the number of exporting firms (the extensive margin).

The data on bilateral trade were compiled from the UN Comtrade database. They cover Georgian exports to 150 partners averaged over a five-year period between 2006 and 2010. Gravity-related variables (distance, contiguity, common colonial and language relationships) are obtained from CEPII (*Centre d'Etudes Prospectives et d'Informations Internationales) database. Economic indicators (GDP, GDP per capita, average tariffs) are from the World Development Indicators database. Data on preferential trade agreements signed by Georgia are obtained from the WTO's Regional Trade Agreements Gateway database.*[5] The index of remoteness is computed by summing each country's distance with every other country, weighted by the latter's share in world GDP.

We use the cost of exporting across countries (measured by indicators of the World Bank Doing Business index) as an exclusion restriction in the first stage (Probit) equation.[6] This is a valid exclusion restriction because the level of trade cost captured in this index affects the propensity of a country to countries engaging in bilateral trade, but not the volume of trade after the trade trading relationship is established. A cross-sectional, rather than a panel, dataset is used because HMR method assumes steady state productivity levels for each year, and does not predict how firm productivity changes year to year.

Table 5 about here

The estimated first stage (Probit), OLS, and the second stage bias-corrected export equations are reported in columns 1, 2 and 3, respectively, in Table 5. The coefficient of the trade cost variable in the first-stage equation (column 1) is statistically significant at the one-precent level, and is not significant in the OLS equation (column 2), confirming the validity of the exclusion restriction on which the two-stage estimation procedure is based. The inverse Mills ratio calculated from the first stage regression is highly significant in the bias-corrected equation. This justifies the importance of sample bias correction. The three 'Z' terms in the bias-corrected equation are all statistically significant, confirming the importance of correcting the heterogeneity bias in the standard gravity model.[7] Importantly, the coefficients

[5] http://www.wto.org/english/tratop_e/region_e/region_e.htm

[6] This cost is associated with all procedures required to export goods from Georgia and to import goods in all its partner countries, including the number of documents, administrative fees for customs clearance and inland transportation.

[7] Helpman et al (2008) show that when the Pareto assumption about the distribution of firm productivity is relaxed, firm heterogeneity can be estimated by a linear model with a cubic polynomial of the *sum* of the inverse Mills ratio and the fitted values of the latent variable in the selection (Probit) equation (Z).

of the bias-corrected model (column 3) are different from coefficients obtained from simple OLS (column 2). The coefficient of bilateral distance in particular is significant and much higher in the bias-corrected model. Not correcting for the two biases, therefore, understated the magnitude of distance as a barrier to exports from Georgia. The coefficient of GDP (of the partner country) is also statistically significant, but not different in magnitude between the two equations. Coefficients of the other variables are not statistically significant but all have the expected signs.

Based on the estimated bias-corrected trade equation, Figure 4 depicts countries to which Georgia "under-exports" above the 45-degree line, and those to which it "over-exports" below it. Georgia does not appear to be under-trading with neighbouring economies such as Armenia and Azerbaijan. However, it does appear to be under-trading with Hungary, Japan, Russia and Turkey. It also appears to "over-export" substantially to the United States and Canada. Interestingly, Georgia under-exports to the major European economies like France, Germany Italy and the United Kingdom notwithstanding the GSP+ trade preferences offered by the EU (EC 2011). Georgia's bilateral trade with major emerging economies like Brazil, China and India appear to be more than what would be predicted given their bilateral characteristics. Overall, a large group of countries with which it trades are its traditional partners from the region, indicating that it still has substantial scope for deepening its presence in the dynamic markets of the European Union.

Product Composition of Exports

The economy of the former Soviet Union was characterised by a high degree of integration of the individual economies based on a precise union-wide division of labour. Each state represented a separate element of a single complex, interrelated in terms of their structure and the distribution of their resources in line with the priorities of central planning. Within this union-wide division of labour, Georgia was predominantly engaged in agricultural produce and foodstuffs (primarily wines, mineral water, tea and citrus fruit) metallurgy, ferrous allays, machinery (agricultural machinery, shipbuilding, aeronautic engineering), machine tools and chemicals exported throughout the Soviet Union (Johnson et al. 1993).

To what extent has the export patterns moulded over 75 years of central planning changed during the reform era? Has Georgia diversified into product lines that have shown greater dynamism in world trade? To address these issues, we now turn to an analysis of comparative export experience at the level of key commodities and commodity groups.

Table 6 summarises data on export performance of Georgia using a commodity classification specifically designed to shed light on the implications of two important developments in world trade which have opened up new export opportunities for latecomers (as discussed in Section 2). They are the emergence of *processed food* as a new dynamic export line within the broader category of food, and expansion of trade in *parts and component* within vertically integrated production systems recorded under machinery and transport equipment category (SITC 7).[8]

Table 6 about here

There has been a notable shift in the export composition away from primary products toward manufactured goods over the past decade. Manufacturing share increased, on average, from 38% in 1998-2003 to 49% in 2004-2010. However, resource-based products (iron and steel and other products classified by material) still dominate Georgia's manufactured goods exports.

Machinery and transport equipment (including electronics), which has been the most dynamic product group in world trade, still account for a small (but rapidly growing) share in Georgia's exports. Within this category, exports of road vehicles have increased rapidly, but these are simply re-exports of used cars imported from other countries (mainly from Germany) to neighbouring countries (mostly to Azerbaijan). The share of parts and components within the machinery groups fluctuated widely, declining in the years leading to 2008, but increasing in 2009 and 2010 (Table 7). Overall Georgia is yet to benefit from global production sharing which has been the prime driver of rapid expansion of world manufacturing trade over the past two decades.

Exports of apparel, footwear and travel goods are among the most rapidly expanding export product categories. According to disaggregated data, this category is dominated by apparel exports, mostly to Germany, UK and Turkey. This reflects an important development in world apparel trade following the termination of the WTO Agreement on Textiles and Clothing (successor to the Multi-Fibre Arrangement) with effect from January 2005. In a

[8] The analysis is based on a systematic separation of processed food and parts and components from UN trade data (both from Harmonized System at the six-digit level and SITC at the five-digit level of disaggregation). The commodity list used in this reclassification of the standard UN trade data is available from the author on request. For details on the classification system see Athukorala and Sen (1998) and Athukorala (2011).

more competitive world market, countries have been able to carve out their own market niches in world clothing trade. Notwithstanding its relatively higher wages compared to the major apparel exporting countries in Asia, Georgian apparel producers seem to have found niche markets in upper-end products (mostly women's wear) in high-income countries in Europe.

Processed food accounts for a sizeable share of total agricultural exports from Georgia (Table 7). But this product category is dominated by beverages (wine and spirits), a clear continuation of trade patterns from the Soviet-era. Overall the composition of processed food does not reflect Georgia's potential in the context of expanding global markets for processed food. Given its fertile land and favourable climate and proximity to the European markets, Georgia has immense potential for expanding export of fruits and vegetables, livestock, dairy products and nuts.

Georgia's processed food exports are heavily concentrated in 'easy' markets in neighbouring countries. EU15 and US, the two largest importers (in that order) do not figure prominently among the destination countries. According to the Georgian trade records, total processed food exports to Russia declined sharply after Russia imposed a ban on wines and mineral water from Georgia. However, interestingly according to the Russian trade records (that is Georgian export data that mirror in Russian imports records) Georgia's exports to Russia after 2007 have begun to pick up. Our conjecture is that processed food exports from Georgia to Russia are probably routed through neighbouring countries, in particular Turkey, Armenia and Azerbaijan. Exports of processed food from Georgian to these latter countries have increased at a much faster rate in these years compared to the previous years.

Table 7 about here

So far, we have examined the commodity profile of Georgian exports in terms of broader product categories. Now we examine Georgia's changing comparative advantage in individual commodities at the 4-digit level of the Standard International Trade Classification (SITC). In particular, what are the products in which Georgia has performed better in world markets compared to its overall export performance? Has the list of products that meet this criterion expanded or shrunk over the years? A useful analytical tool that helps answer these issues is the Revealed Comparative Advantage (RCA) Index, which measures a country's relative export performance in individual product categories compared to its overall export performance in world trade (Balassa 1965). If the value of the *RCA* exceeds unity for

commodity *j*, the country is said to have 'revealed' comparative advantage in the production of that commodity. In contrast, if *RCA* index is below one, the country is at a comparative disadvantage in the production of the commodity.

Table 8 about here

The RCA indices are given in Table 8 for products that had RCA>1 in both 2003 and 2010) (which we call here *dynamic exports*) and products that had RCA<1 in 2003 but RCA>1 in 2010 (*emerging exports).* The first impression from a comparison of the RCA estimates for products belonging to these two groups between 2003 and 2010 is that Georgia's revealed comparative advantage in world trade remains heavily concentrated in the agro-based primary products and resource-based manufacturing. Products belonging to the emerging category accounted for less than 10% of total merchandise exports in 2010. Other than apparel items like women's blouses, most of these products reflect a continuation of specialisation patterns inherited from the central planning era.

5. Conclusion and policy inferences

When appropriately allowed for export contraction in 2009 propelled by the global financial crisis, Georgia's exports have grown at much faster rate during the post-Rose revolution era compared to the previous years of the post-independence period. However, Georgia's share in total trade of the transition economies in the region, let alone its share in world trade, remains miniscule. The degree of export orientation has increased, but remains low compared to small economies at comparable levels of income.

There has not been a significant diversification of the geographic profile of trade away from the traditional markets in the former Soviet Union and toward the more dynamic emerging economies and affluent Western markets. Nor has there been a sufficient reorientation in exports either in terms of product composition or market reach. Exports are still dominated by resource-based manufacturing and few agro-based food products as in the Soviet era. Georgia has remained an under-performer in benefiting from the rapidly expanding market opportunities associated with the continuing process of product fragmentation within vertically integrated global production networks.

Why have the significant market-oriented reforms failed to generate a superior export outcome of increased contribution of the export sector to the growth dynamism of the

economy? In answering this question, it is customary to look at the relative importance of factors relating to external trading environment and those relating to domestic supply. However, there are no reasons to argue that external demand factors played a distinct role in export performance during 2003-2008 compared to the previous years. In terms of access to the EU markets, the difference between the CEEC countries and CIS countries diminished significantly after the CIS countries were accorded GSP status in the mid-1990s. Moreover, political and economic ties with the US and other Western countries strengthened after the new government's firm commitment to market-oriented reforms and improved private sector sentiments about the business climate in the country. So we need to look at the supply side in search of an explanation. What are the supply-side problems constraining export growth? What should be the reform priorities for addressing these problems? To answer these questions, it is essential to revisit the policy context and the business environment that underpin export performance.

A plausible supply-side explanation is the persistent appreciation of the real exchange rate. Significant trade liberalisation and the related market-oriented reforms have not been accompanied by macroeconomic stabilisation and appropriate exchange rate policy to improve profitability of export (and other tradable) production compared to non-tradable activities in the economy. The general inference of previous studies of export performance in transition economies (and also other developing economies) is that export expansion requires the simultaneous pursuit of liberalisation and stabilisation.

However, achieving export success is not a matter of sound macroeconomic policy alone. Notable differences in export growth among different product categories/products and the slow rate of emergence of new export lines point to the importance of supply-related constraints. In the area of processed food export, a key determinant of export success is the ability of exporting firms to meet international food safety standards. Our analysis of patterns of process food exports show that Georgian exporters have not yet been able to penetrate lucrative markets in the EU and other developed countries. This may reflect lack of adequate capacity on the part of Georgian processed food exporters to meet international food safety standards. For instance, the WTO Trade Policy Review of Georgia (2009) notes that the SPS system in Georgia (the former Soviet GOST food safety system) is not compatible with that of EU, and only products that do not require official health certification are currently exported to the EU market. For example, the two most important dynamic Georgian exports to EU are wines and hazelnuts for which the official EU SPS certification is not required (and the producers can provide conformity). In 2005 Georgia passed a new law on

'Food Safety and Quality' based on the OECD-based Hazard Analysis and Critical Control Points (HACCP) food safety system. However, because of lack of funding, insufficient institutional capacity, and fear of factory closure in the food industry, the law was amended twice, resulting in the suspension of its core article. There is strong empirical evidence that internationally compatible food-safety standards are a *sine quo non* for success in penetrating developed-country food markets (Athukorala and Jayasuriya 2003; Jongwanich 2009).

In the era of rapid global spread of production networks, 'trade and FDI have become inseparable twins' (Helpman 2011, p. 129). A country's ability to successfully join global production networks depends crucially on its ability to entice multinational enterprises to set up assembly plants in the country. This is clearly illustrated by the recent export performance of CEEC countries (Kaminski & Ng 2008; Kierzkowski 2001). Rapid expansion in these countries has largely emanated from their increasing integration into the production and marketing networks in electronics, electrical goods and automobiles. EU-centred MNEs have been the key players in this process. As noted earlier, Georgia has opened its door to foreign direct investment in a highly liberal and indiscriminate manner. Consequently, investment has grown rapidly since 2003. However, it is heavily concentrated in the non-tradable sectors. Moreover, the bulk of manufacturing FDI has come from Russia. There is clearly a need for a well-targeted investment promotion campaign to attract Western MNEs involved in global production sharing. This is an area for further policy research.

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Table 1: Transition economics in Europe and Central Asia: Average tariff and tariff binding under WTO (circa 2009-2010)

	WTO accession	Average MFN tariff (%)			Average bound rate (%)			MFN duty free imports (%)	
		All goods	Agri. Products	Mfg. products				Agri. Products	Mfg. products
Estonia	November 1999	5.6	16.0	4.0	5.5	15.9	3.9	51.3	53.2
Latvia	February 1999	5.6	16.0	4.0	5.5	15.9	4.8	51.3	53.2
Lithuania	May 2001	5.6	16.0	4.0	5.5	13.9	3.9	51.3	53.2
Kazakhstan	Observer	6.0	13.2	4.9				13.7	46.5
Kyrgyz Rep.	December 1996	4.7	7.8	4.2	7.5	13.0	6.7	31.6	47.0
Tajikistan	Observer	7.9	11.4	7.4					
Uzbekistan	Observer	15.5	19.5	14.9	10.8	13.3	10.5	8.3	9.2
Belarus	Observer								
Moldavia	July 2001	4.7	11.2	1.1	7.0	13.6	6.0	26.2	72.4
Russia	Observer	10.8	14.2	10.2				6.9	24.7
Ukraine	May 2008	5.0	7.1	4.7	14.7	25.4	13.1	46.7	16.9
Armenia	February 2003	2.9	6.9	2.2	8.5	14.7	7.5	30.1	62.8
Azerbaijan	Observer	9.1	13.8	8.4				34.0	10.1
Georgia	**June 2000**	**1.4**	**8.3**	**0.3**	**7.4**	**13.8**	**6.5**	**41.8**	**96.4**
Bulgaria	December 1996	5.6	16.0	4.0	5.5	15.9	3.9	51.3	53.2
Czech Rep.	January 1995	5.6	16.0	4.0	5.5	15.9	3.9	51.3	53.2
Hungary	January 1995	5.6	16.0	4.0	5.5	15.9	3.9	51.3	53.2
Poland	July 1995	5.6	16.0	4.0	5.5	15.9	3.9	51.3	53.2
Romania	January 1995	5.6	16.0	4.0	5.5	15.9	3.9	51.3	53.2
Slovak Rep.	July 1995	5.6	16.0	4.0	5.5	15.9	3.9	51.3	53.2

Source: WTO *Trade Profiles*, Geneva

Table 2: Georgia's key indicators of export performance, 1996–2010

	Total exports		Exports net of oil gas and metals		Share of exports net of oil, gas and metals in total	Share of exports net of oil, gas and metals in world (net) exports
	US$ million	Growth (%)	US$ million	Growth (%)	(%)	(%)
1996	198.8		145.4		73.1	0.003
1997	239.8	20.6	185.3	27.5	77.3	0.004
1998	192.3	-19.8	155.8	-15.9	81.0	0.003
1999	238.2	23.8	168.8	8.4	70.9	0.004
2000	322.7	35.5	203.0	20.3	62.9	0.004
2001	317.6	-1.6	205.2	1.1	64.6	0.004
2002	345.9	8.9	254.1	23.8	73.5	0.005
2003	461.4	33.4	322.5	26.9	69.9	0.005
2004	646.9	40.2	467.6	45.0	72.3	0.006
2005	865.5	33.8	689.5	47.5	79.7	0.009
2006	935.1	8.1	702.8	1.9	75.2	0.008
2007	1232.4	31.8	946.0	34.6	76.8	0.009
2008	1497.5	21.5	1150.2	21.6	76.8	0.010
2009	990.1	-33.9	784.6	-31.8	79.2	0.008
2010	1285.5	29.8	959.9	22.3	74.7	0.009
Annual average						
1996-2003	289.6	14.4	205.0	13.1	71.6	0.004
2004-2008	1035.5	27.1	791.2	30.1	76.1	0.008
2008-2010	1137.8	-2.0	872.2	-4.7	77.0	0.008

Source: Compiled from UN Comtrade database.
Note 1: Merchandise exports at current US$; Oil, gas and metals refer to SITC Section 3, Divisions 27, 28 and 68

Table 3: Transition economics in Europe and Central Asia: country share and growth of exports (%)

	Share (%)			Compound annual growth rate (%, average)	
	1998	2004	2010	1998-2004	2004-2010
Commonwealth of Independent States					
Armenia	0.1	0.2	0.1	19.8	10.4
Azerbaijan	0.3	0.6	2.1	27.0	37.4
Bulgaria	2.6	2	2.1	9.3	13.2
Belarus	3.1	2.4	2.2	9.8	11.3
Estonia	1.4	1.3	1.1	13.2	9.3
Georgia	0.2	0.2	0.3	18.1	16.6
Kazakhstan	2.3	3.4	4.9	22.5	19.2
Kyrgyz Republic	0.2	0.1	0.2	7.8	18.9
Lithuania	1.7	1.8	1.9	15.0	13.4
Latvia	1.1	0.9	1	11.7	13.5
Moldova	0.3	0.2	0.2	8.8	9.7
Russian Federation	29	30.8	33.3	15.7	13.9
Tajikistan	0.2	0.2	0.1	11.0	-5.6
Turkmenistan	0.3	0.6	0.8	30.6	16.1
Ukraine	6	6	5.2	14.6	9.7
Uzbekistan	1.2	0.7	0.9	6.2	16.8
Central and Eastern European Countries					
Czech Republic	11.4	10.9	10	13.6	11.0
Hungary	10.1	9.8	8.3	13.9	9.5
Poland	15.4	14.4	14.9	13.2	13.1
Romania	3.3	4.1	2.8	19.0	5.8
Slovak Republic	5.9	6.3	5.3	15.8	9.2
Slovenia	3.8	3	2.3	9.9	7.8
Total (in %)	100	100	100		
Total (in US$ billion)	292.0134	660.2261	1335.412		

Source: Compiled from World Development Indicators database.

Table 4: Direction of Georgia's exports (%)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Armenia	9.3	6.3	4.2	3.9	5.8	6.7	8.4	4.6	7.9	9	8.3	4.8	5.7
Azerbaijan	9.6	8.1	6.3	3.1	8.4	3.5	3.9	9.6	9.4	11.1	13.7	11.3	9
Russia	28.7	18.7	20.8	23.3	17.7	18.2	16.2	17.8	8.1	3.7	1.9	2	2.6
Ukraine	4.4	4.6	3.3	3.6	3.6	6.5	2.4	4.3	6.1	7.6	9	8.4	7.9
Other CIS countries	3.7	7.3	5.1	11.4	13.1	13.8	19.7	10.8	10.3	6	3.3	5	6
Turkey	10.5	15.8	22.6	22	15.5	17.9	18.3	14.1	13.2	13.9	17.6	21.8	15.4
CEE countries	2.5	1.7	2.2	1.8	1.1	0.8	3.8	7.6	8.9	6.9	9.4	11.8	8.9
EU-15	18.1	20.5	21.5	17.6	17	16.8	15.7	17.2	14.6	14.2	12.3	9.5	11.4
USA	5.8	4.2	2.2	2.8	3.9	3.3	3.3	3.1	6.3	12.1	6.8	3.7	13.9
Brazil, India and China	0.5	0.2	0.7	1.7	1	1.6	1.4	0.9	2.4	2.1	1.8	1	3.3
Rest of the World	6.9	12.5	11.1	8.7	12.8	10.9	6.8	10.1	12.9	13.3	15.9	20.5	16

Source: Compiled from UN Comtrade database.

Table 5: Determinants of Georgia's exports by partner country

	Probit Estimates (first stage)	*OLS*	OLS Bias-corrected (second stage)
	(1)	(2)	(3)
Distance	-0.022	-0.836**	-1.214***
	(0.324)	(0.405)	(0.393)
Partner GDP	0.520***	0.560***	0.564**
	(0.115)	(0.17)	(0.25)
Partner GDP per capita	0.007	0.293	0.127
	(0.127)	(0.258)	(0.117)
Remoteness	-2.090*	-0.764	-1.119
	(1.136)	(1.153)	(1.18)
Average weighted tariff	-0.007	-0.015	-0.013
	(0.042)	(0.093)	(0.061)
Contiguity	.	1.426	0.251
	.	(1.176)	(0.905)
Free trade area	.	2.848***	1.832
	.	(0.848)	1.125
Fixed cost of trading	-1.118**	-0.573	
	(0.576)	(1.024)	
Inverse Mills Ratio			
Z			18.085***
			(5.082)
Z^2			-5.507***
			(1.808)
Z^3			0.560***
			(0.197)
R-squared		0.52	0.62
No. of observations	150	108	108

Source: Data sources and the estimation method are discussed in the text.
Note 1: Heteroscedasticity-corrected standard errors are given in brackets; statistical significance of coefficients is denoted as *10%, ** 5% and ***1%.

Table 6: Commodity composition of Georgia's exports (%), 1998-2010[1]

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1. **Primary – agriculture**[2] (SITC 0, 1, 2, 4 net of 27 and 28)	38	29.2	31.2	27.7	32.0	38.0	33.3	37.0	27.3	26.4	18.3	30.8	21.5
1.1 Agricultural raw materials	4.2	3.4	3.3	2.3	2.5	2.9	2.2	2.1	2.3	2.3	1.8	1.9	1
1.2 Food, beverage, tobacco, live animals	33.8	25.8	27.9	25.4	29.5	35.1	31.1	34.9	25	24.1	16.5	28.9	20.5
1.2.1 Processed food and beverages	14.2	10.1	12.5	13.9	17.1	21	18.1	18.2	11.2	11.8	9.7	9.4	8.1
2. **Primary – resources**[3] (SITC 3, 27, 28 and 68) Fuel, ores, metals	19	29.1	37.3	35.4	26.6	30.1	27.7	20.4	24.9	23.3	23.2	20.9	25.4
3. Manufacturing (SITC 5, 6, 7 and 8 net of 68)	43.2	41.8	31.6	37	41.5	31.7	39	42.6	48	50.4	58.5	48.6	53.1
3.1 Chemicals and related products	13.8	9	10.7	6.2	7	6.3	6.9	6.8	8.3	9.6	10.6	9.3	8.8
3.2 Textiles, leather, rubber	0.6	0.3	0.5	0.2	0.2	0.1	0.3	0.1	0.2	0.1	0.1	0.1	0.2
3.3 Iron and steel	17	9.5	5.2	6.3	4.9	6.5	7.8	9.8	10	13.5	19.6	13.8	24.1
3.4 Other manufacturing classified by material	1.9	2	1.7	1.1	0.4	0.6	1.5	2.7	4.4	6.9	6.2	3.5	1.4
3.5 Industrial machinery	4.3	4.3	6.9	4.1	2.1	2.1	3	3.8	3.6	2.8	1.3	1.2	1.8
3.6 Electronics	0.6	1.2	0.4	0.9	0.7	0.6	0.4	0.3	0.4	0.9	0.8	0.8	0.6
3.7 Road vehicles and transport eq.	2.7	12.1	4.8	12.7	16.4	9.7	15.1	12.8	12.6	8.8	10.9	4.4	6
3.8 Apparel, footwear, travel goods	1.2	1	0.8	0.6	0.4	0.7	0.3	1	1.3	1.3	1.4	2.6	2.2
3.9 Miscellaneous manufacturing	1	2.4	0.6	1	1.1	0.7	0.8	1.3	2	0.8	0.9	1.1	1.3
4. Other	0.1	0	0	3.9	8.3	4.4	2.9	4	5.2	5.7	6.7	11.8	6.7
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
US$ million	192.3	238.2	321.1	317.4	345.4	460.9	646.5	864.3	934.6	1228.2	1494.9	985.4	1282.1
Memo item													
Share of parts and components in machinery, electronics and transport	45.1	19.0	32.4	16.1	27.3	32.6	13.2	20.8	16.1	20.4	10.1	28.3	33.0

Source: Compiled from UN Comtrade database.

Table 7: Processed food exports from Georgia, 1998-2010

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Export of agricultural exports (US$ million)	72.9	69.5	100.2	87.7	110.7	175.5	215.3	320.5	254.4	323.9	273.9	303.0	276.1
Share of processed food (%)	37.6	34.3	40.0	50.3	53.3	55.2	54.2	49.0	41.2	44.8	52.7	30.6	37.8
Beverage	26.0	24.6	32.4	41.7	35.6	32.1	31.6	34.8	28.5	27.4	36.4	23.8	26.5
Coffee/cocoa	1.1	0.2	0.4	0.4	0.7	0.8	1.1	0.5	0.6	0.3	0.3	0.1	0.1
Dairy	0.4	0.2	0.1	0.0	0.7	0.1	2.1	0.8	0.3	0.2	0.2	0.0	0.6
Edible preparations	1.1	0.4	0.3	0.5	0.3	0.4	0.1	0.2	0.3	0.2	3.5	2.7	2.9
Egg products	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.0
Fish	0.2	0.3	0.1	0.4	0.1	0.2	0.1	0.3	0.4	0.6	2.2	0.9	1.9
Flour	0.8	0.8	2.0	1.5	0.0	0.4	0.2	0.4	0.0	0.3	0.9	0.1	0.1
Fruit	3.5	2.5	1.0	1.6	1.3	0.9	0.7	1.5	2.6	4.8	4.0	1.3	2.7
Meat	1.3	1.4	0.3	0.1	1.6	0.2	0.4	0.2	0.3	0.4	0.2	0.0	0.0
Sugar	2.9	2.7	2.8	3.6	12.4	19.6	16.7	9.5	7.6	9.0	3.1	0.2	0.2
Vegetable oil	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.5	0.7	0.1	0.4
Vegetables	0.3	1.2	0.6	0.5	0.6	0.5	0.9	0.7	0.6	0.9	1.2	1.1	2.4

Source: Compiled from UN Comtrade database.

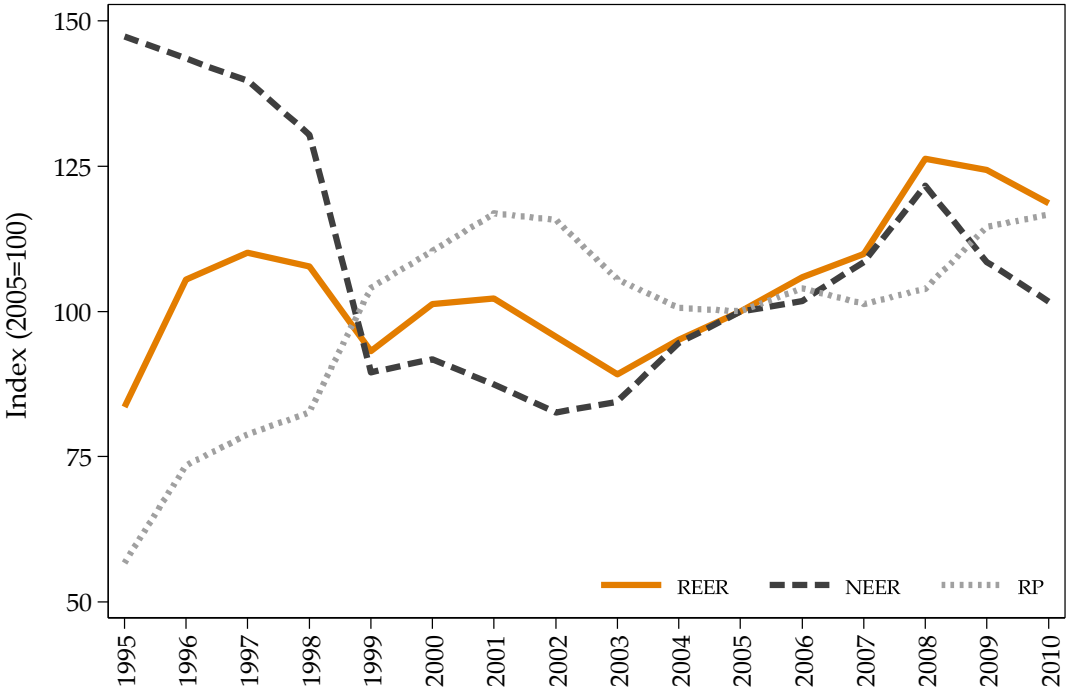
Table 8: Classification of Georgian exports by revealed comparative advantage (RCA)

SITC 4-digit	Product	Share in total exports (%)		RCA	
		2003	2010	2003	2010
6715	Other ferrous alloys	4.2	20.5	35.1	102
2823	Ferrous waste/scrap	11.2	7.4	82.7	31.1
9710	Gold non-monetary ex ore	4.4	6.7	9.6	5.8
5621	Nitrogenous fertilizers	4	5.6	38.8	39.2
2831	Copper ores/concentrates	5.1	5.5	43.2	16.3
577	Nuts edible fresh/dried	2.7	5	31.2	45.3
2882	Non-ferrous metal waste	4.6	4.4	36.4	16.1
1110	Non-alcoholic beverage	6.9	3.4	53.9	26.7
1121	Wine of fresh grapes	9.4	2.9	34.2	12.9
3510	Electrical energy	1	2.8	4.1	11.3
1124	Distilled alcoholic beverages	2.9	2.7	13.7	15.3
7929	Aircraft parts	1.9	1.9	3.4	5.1
7911	Electric locomotives	0.4	1.4	96.1	114.7
2822	Waste/scrap alloy steel	1.9	1.2	38.3	12
571	Citrus fruit fresh/dried	0.5	0.9	6.8	14.2
599	Fruit juices	0.3	0.5	4.7	8.1

SITC 4-digit	Emerging products	Share in total exports (%)		RCA	
		2003	2010	2003	2010
6762	Hot-form steel bars/rods	0	2.8	0.1	18.2
989	Food preparations	0	0.6	0.2	2
6612	Portland cements	0	0.4	0.6	5.4
7935	Special purpose vessels	0	0.4	0.1	2.1
8454	T-shirts and singlets knitted	0	0.4	0	1.8
8215	Wooden furniture	0	0.4	0	1.3
8427	Women/girls blouse woven	0	0.3	0	4.5
341	Fish	0	0.3	0.4	2.7
7138	Internal combustion engines	0.1	0.3	0.6	2.8
545	Vegetables, fresh/chilled	0.1	0.3	0.3	1.4
6726	Semi-finished iron/steel	0	0.3	0	1.4
8425	Women/girl skirts woven	0	0.3	0	8.6
579	Fruit fresh/dried	0.1	0.3	0.8	1.4
8447	Women/girls blouses knitted	0	0.2	0.2	5.1
7165	Electricity generating machines	0	0.2	0.1	1.2
8432	Men/boys suits knitted	0	0.2	0.1	2.5
7224	Wheeled tractors	0	0.2	0	1.3

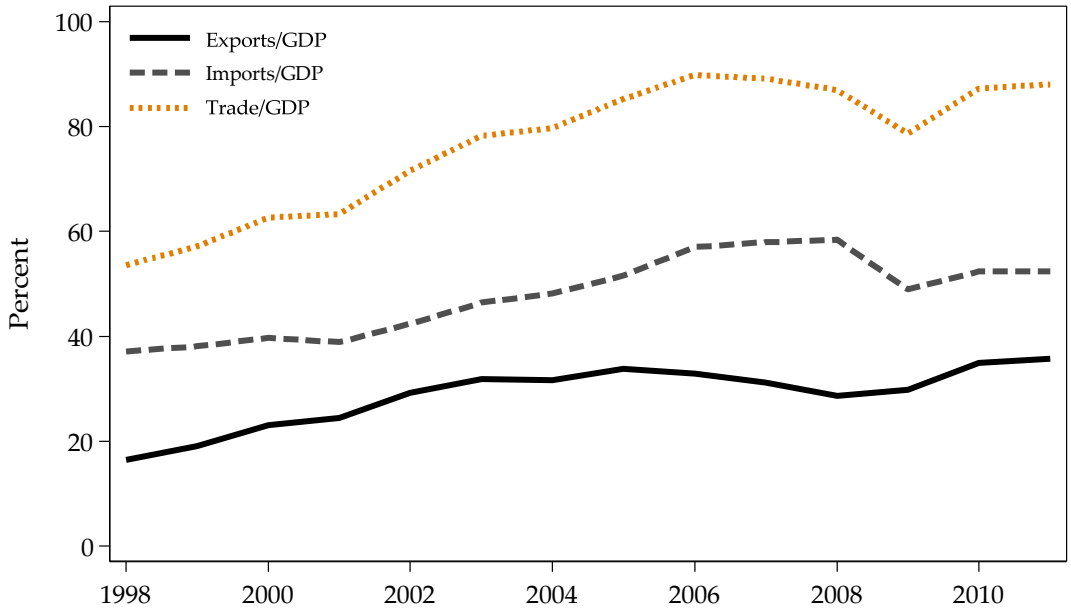
Source: Computed from UN Comtrade database.

Figure 1: Georgia's Real exchange rate and its components, 1995-2010



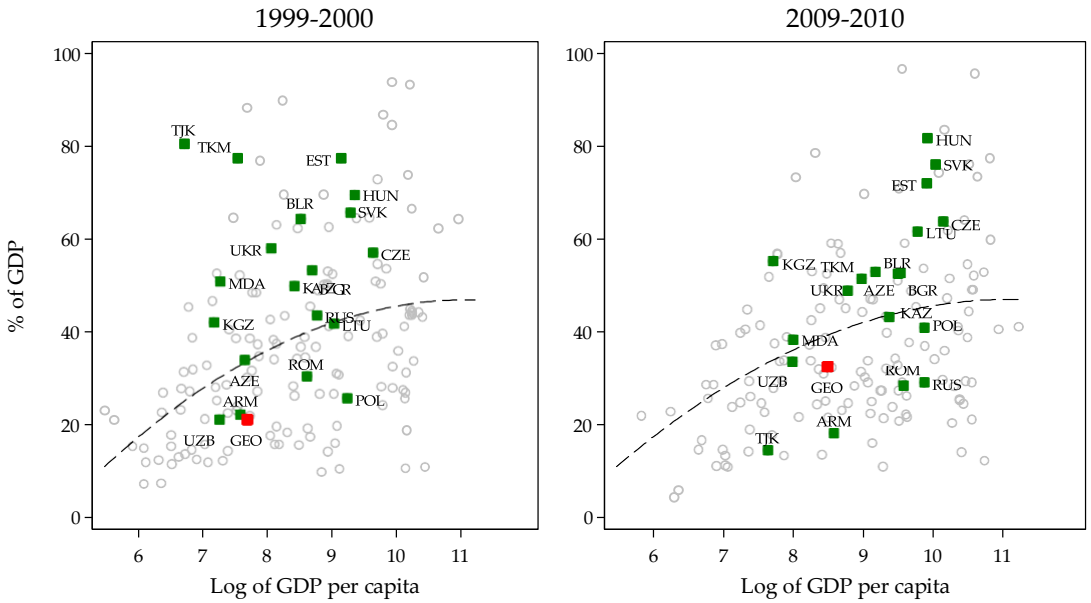
Source: Compiled using data extracted from *World Development Indicators* (WDI).
Note 1: REER (real effective exchange rate); NEER (nominal effective exchange rate); RP (Georgian price level relative to that of the trading partners measured by consumer price index); an increase in RER indicates real appreciation.

Figure 2: Georgia's trade trend



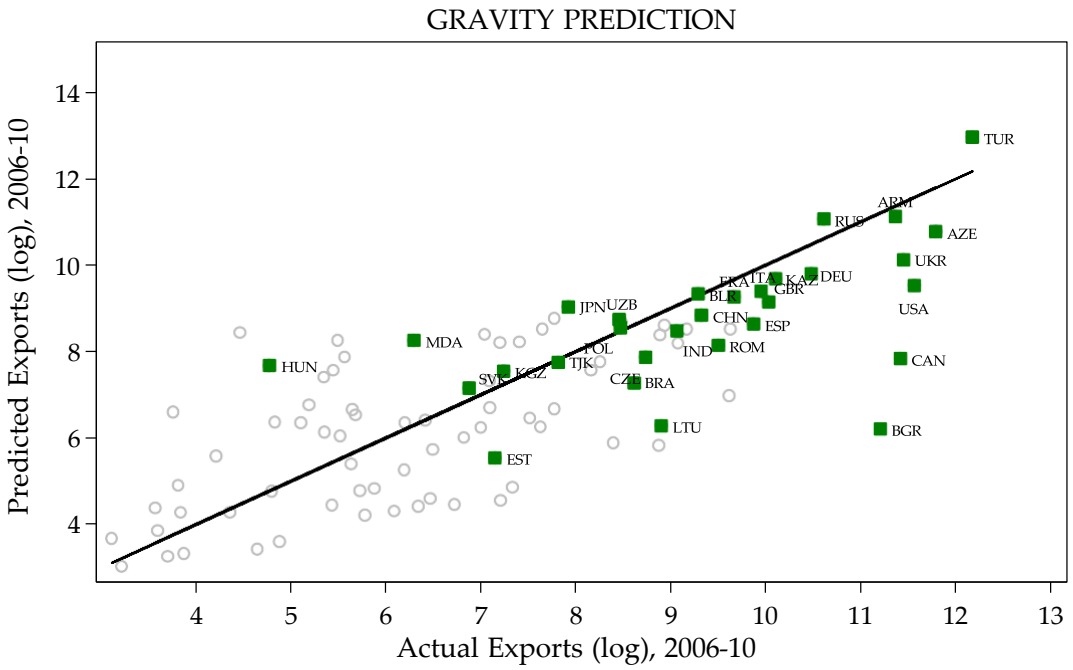
Source: WDI

Figure 3: Trade openness of Georgia and peers



Note 1: Curve is a quadratic fit of export/GDP regressed on the log of GDP per capita and its squared value.
Note 2: A balanced panel of 157 economies.
Source: WDI.

Figure 4: Trade partners of Georgia relative to potential



Source: COMTRADE

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