



PULP & PAPER INDUSTRY IN GEORGIA



Business Case

THE OPPORTUNITY: INVESTING IN PULP MILL IN GEORGIA



Country Profile

Georgia (2011)

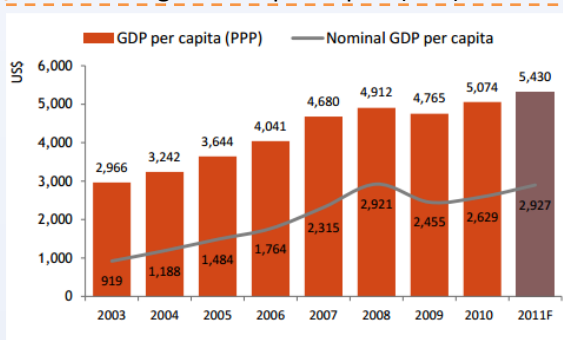
Population	4,4 million
Labor force	1,9 million
Unemployment	16,0%
GDP p.c. USD (PPP)	USD 5.421
Area	69,7 k sq. km
Capital	Tbilisi
Currency	Lari (GEL)



Competitive advantages for your business

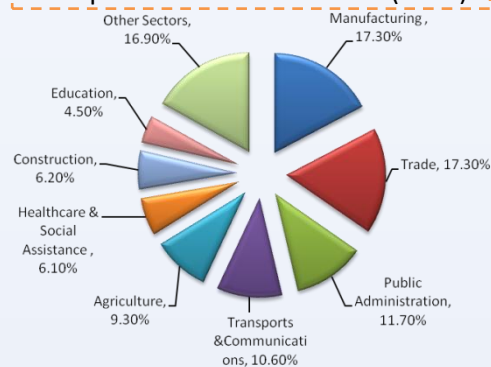
➤ Stable Macroeconomic Environment

Georgia GDP - per capita (PPP)



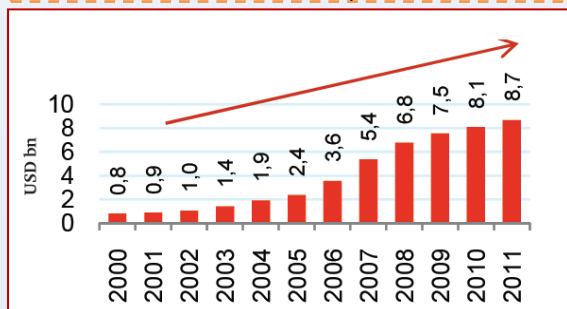
Source: MOF

Components of Nominal GDP (2011)



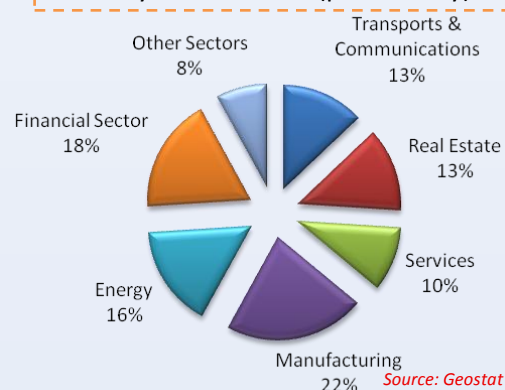
Source: Geostat

➤ Favorable business conditions for foreign investors

Foreign direct investment in Georgia,
Cumulative inflow, USD bn

Source: PwC Analysis

FDI by Sectors 2011 (preliminary)



Source: Geostat

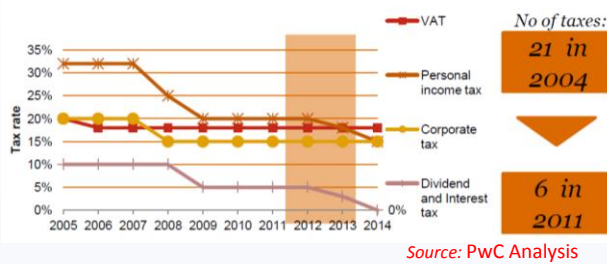
➤ An easy place to do business

Starting a business is viewed as a quick and easy process. In particular, it takes only 3 procedures and 3 days to register a new economic activity.

➤ Low Taxes

Liberal tax and legal systems promoting the ease of doing business has attracted a growing inflow of foreign investment in Georgia.

Development of tax system in Georgia, 2005-2014



Georgian trade policy

Low import tariffs (90% of goods free from import tariff)

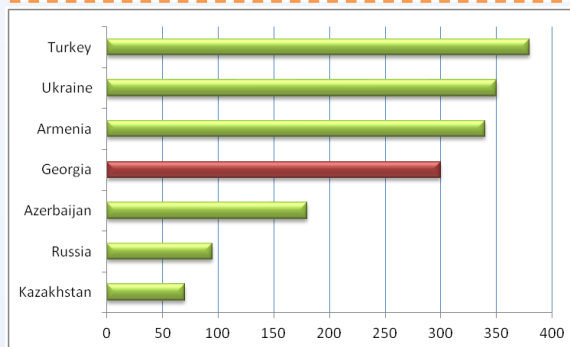
- Few export/import licenses and permits
- No quantitative restrictions on import and export
- No customs tariff on export and re-export
- No VAT on export
- Simplified export and import procedures

Trade Regimes

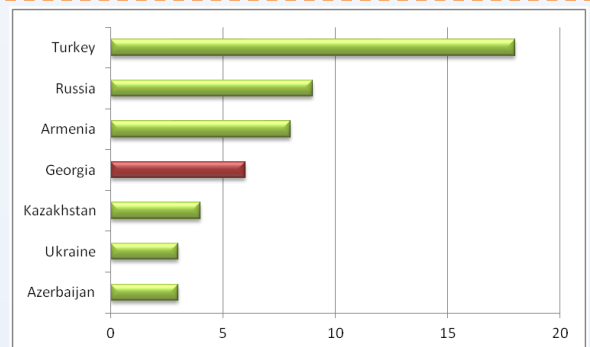
WTO Members	WTO member (since 2000). MFN Tariffs with WTO Members
USA, Canada, Switzerland, Japan, Norway	Georgia benefits from a Generalized System of Preferences (GSP) when trading with the USA, Canada, Switzerland, Japan and Norway; accordingly lower tariffs are applied on goods exported from Georgia to those countries
European Union	GSP+ status with the EU allows Georgia to Export 7,200 products to the EU market duty free.
CIS countries, Turkey	Free Trade Regime with Commonwealth of Independent State countries ¹ and Turkey (since 2008)
On negotiation	Georgia is actively working with the EU and the USA to promote free trade negotiations

➤ Low energy cost & competitive gas price

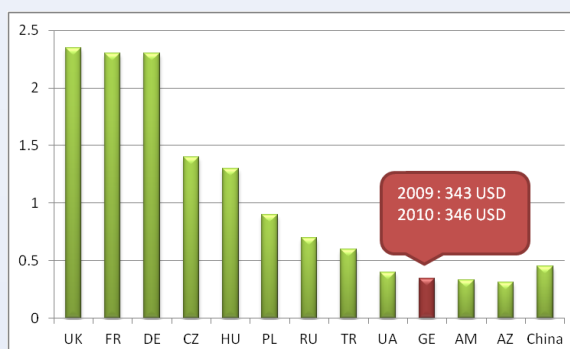
Natural gas Prices, USD per 1000 cubic meters, July 2011



Electricity power price US cents per 1kWh, July 2011



➤ Low cost but experienced workforce



➤ Developed Infrastructure & Communication

- Flight:** 5 airports; 3 of which international, with passenger direct connections to more than a dozen countries
- 117** Average number of **weekly international flights**
- Sea:** 3 sea ports in the Black Sea
- Road:** +20,000 km of existing road
- Railway:** +100 stations connecting the main business and population centers

➤ Strategic geographic location

Situated at the strategically important crossroads where Europe meets Asia, Georgia is considered to be a bridge connecting several important economic regions.



Paper products* Import/Export

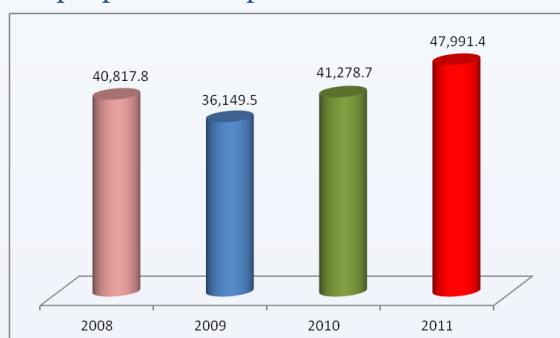
(Quantity =Tons, Value=1,000USD \$)

	2008		2009		2010		2011	
	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity
Import	82,579	40,817	72,707	36,149	83,843	41,278	101,435	47,991
Export	2,537	628	1,957	523	2,756	619	2,835	1,209

* (HD Codes 4801, 4802, 4803, 4804, 4805, 4807, 4808, 4811, 4814, 4818, 4819)

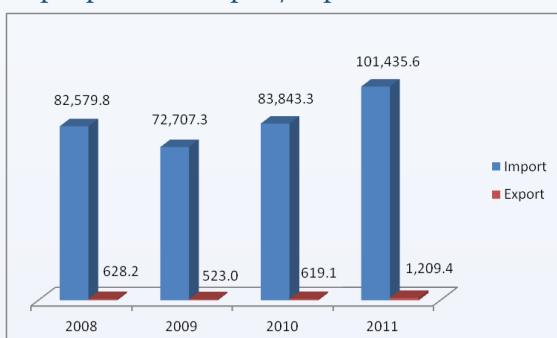
Source: Geostat

Paper products Import 2008-2011 (Thsd. USD)



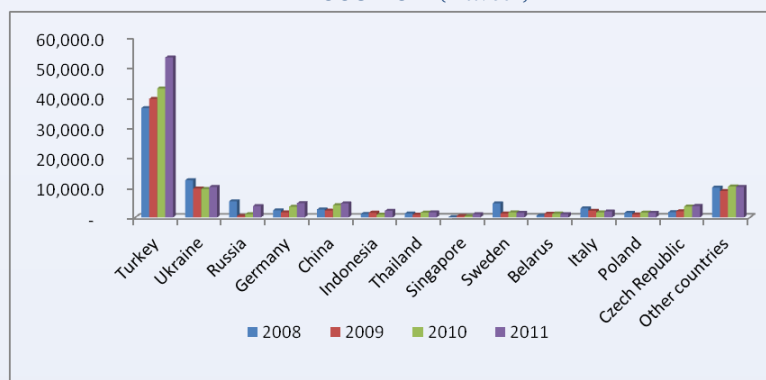
Source: Geostat

Paper products Import/Export 2008-2011 (Tons)



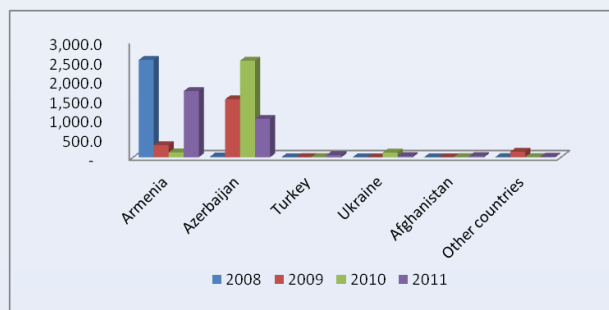
Source: Geostat

Paper products Import by major Countries
2008-2011 (Thsd. USD).



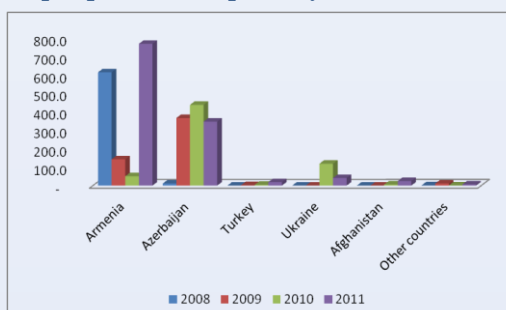
Source: Geostat

Paper products Exports by Countries (Thsd. USD)



Source: Geostat

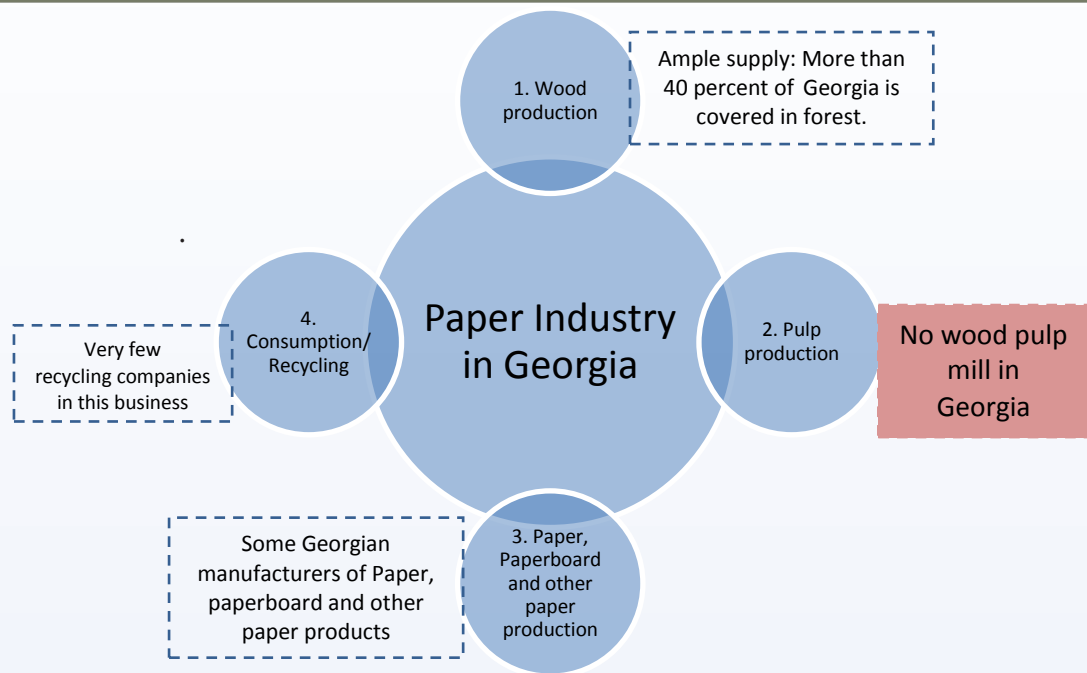
Paper products Exports by Countries (Tons)



Source: Geostat

Main points:

- Imports play a significant role in the Georgian paper market, accounting for approximately 95% of apparent consumption in 2011.
- Total paper products exports/re-exports of Georgia totaled 1,209 tons in 2011 and the value of exports totaled 2,835 thousand dollars. Georgia exported/re-exported paper products mainly to 2 countries in 2011. The major export market is Armenia.



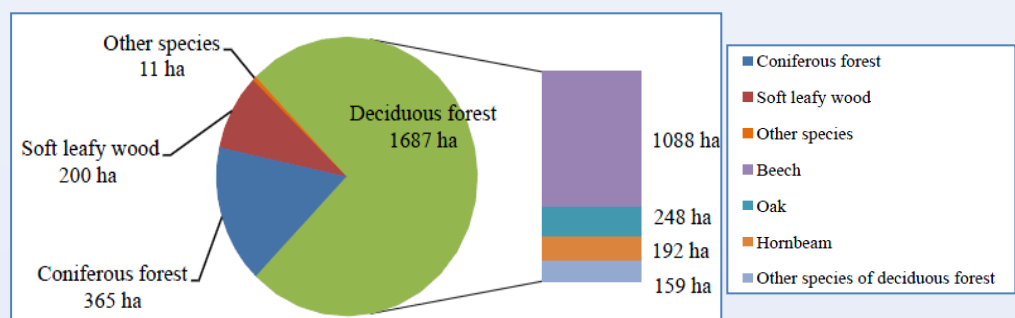
Wood Production
Statistics on Georgia 's Forestry Sector

Total forest fund area	2.98 million hectares, including 2 million ha covered by timber (40% of country territory)
Total volume timber	451.7 million m ³
The average forest density	157m ³
Annual wood surplus/re-growth	4.6-4.8 million m ³
Average volume of timber per ha	163 m ³
Mature trees and old trees	33.4% and 35.4% of forest coverage

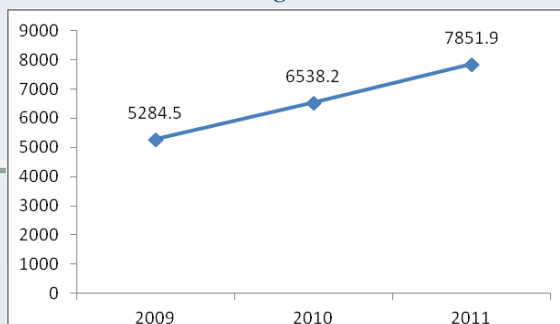
Paper, paperboard and other paper products
manufacturers in Georgia

Ltd. Georgian cardboard	JSC Italian - Georgian Industrial Group
Ltd. Milangi	Ltd. Jiaikompani
Ltd. Vargi	Ltd. Pepela +
Ltd. Ruloni	Ltd. LMS
Ltd. Karaboki	Ltd. Sugra
Ltd. Georgian Paper Industry	Ltd. Geoteknologiebi
JSC. Kakheti	Ltd. Sophia +
Ltd. Pegasi XXI	Ltd. Zoma paper
Ltd. Gofratara	Ltd. D.A.G.
Ltd. Georgian paper Company	Ltd. T - G Company
Ltd. Margio	Ltd. Bianco
Ltd. MG Company - 2008	Ltd. ALG

Source: Geostat

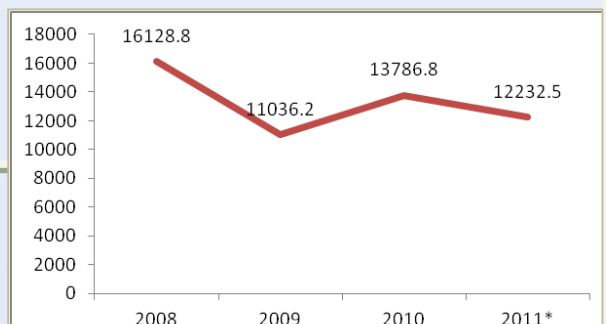


Paperboard packaging produced
in Georgia (Thsd. USD)



Source: Geostat

Turnover in a corrugated cardboard,
paper and carton packing production (Thsd. USD)



Source: Geostat

Subject of the deal: Investing in a Pulp mill in Georgia

Market situation:

- The market is dominated by imported products (Paper products Import = 95 % of consumption in 2011).
- Very low local paper products production and not good production technology.
- No Pulp production.
- Very low Export/Re-export.
- The price of cellulose/pulp imported is too expensive.

Local consumption is growing:

- Significant increase in paper products imports. Consumption of paper products in Georgia is growing each year.

Opportunities for investor:

- Taking advantage of low raw materials & low labor costs,
- Having easy access to local & regional markets and beyond,
- Many of the inputs are cheaply and easily available.
- Easy to substitute imports (which are more expensive).
- Favorable taxes and business environment.



PULP MILL

A pulp mill is a manufacturing facility that converts wood chips or other plant fibers source into a thick fiber board which can be shipped to a paper mill for further processing.

• **Pulp** is a lignocellulosic fibrous material prepared by chemically or mechanically separating cellulose fibres from wood, fibre crops or waste paper. Wood pulp is the most common raw material in papermaking.

• **Pulp** can be manufactured using mechanical, semi-chemical or fully chemical methods.

• Wood and other plant materials used to make pulp contain three main components: cellulose fibers (desired for papermaking), lignin (a three-dimensional polymer that binds the cellulose fibers together) and hemicelluloses (shorter branched carbohydrate polymers).



Investment Required - Machinery & equipment

Return on Investment (ROI) – Examples in the world

USD, Million	Australia	Brazil	China	Mozambique	Uruguay	Russia (Vologda)
Investment	2,700	2,500	2,200	2,300	2,300	2,700
Output 1,000 t/a	1,450	1,450	1,450	1,450	1,450	1,375
Gross revenue	900	920	920	920	920	910
Cash costs	(480)	(500)	(570)	(500)	(490)	(440)
Depreciation	(140)	(130)	(120)	(120)	(120)	(140)
EBIT	190	250	210	260	270	290
ROI %	7 %	10 %	9 %	11 %	12 %	11 %
Equity ratio %	50 %	50 %	50 %	50 %	50 %	50 %
Interest rate %	4.4 %	5.3 %	4.8 %	6.2 %	5.7 %	5.3 %
Interest Payment	60	70	50	70	70	70
Taxes	40	60	40	40	0	40
Net income	90	120	120	150	200	180
ROE, %	7 %	10 %	11 %	13 %	17 %	13 %

Source: EBRD

- The return on investment (ROI) is 7 % - 12 %
- The return on equity (ROI) is 7 % - 17%
- Pulp mills need 50 % equity to survive the market cycle