Engineering goods: Potential in Georgia

David Saha, Olga Azhgibetseva

German Economic Team Georgia

In cooperation with ISET Policy Institute

Berlin/Tbilisi, July 2015

Georgia's potential in selected engineering goods

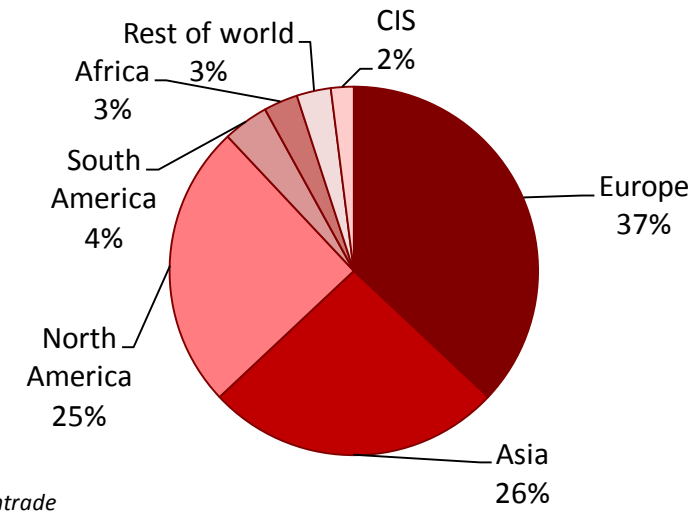
- We predicted potential for Georgia to specialise in the production of **four types of engineering goods** (PP/01/2015).
- These goods are:
  - Insulated wire and cable
  - Pleasure and sport vessels
  - Cargo containers
  - Derricks, cranes, straddle carriers
- Conclusions on the potential for producing these will probably also apply to **similar engineering goods of low to moderate complexity**
- We proceed in two stages:
  1. Analysis of current situation in Georgia and on the world market
  2. Competitive potential of Georgia for producing these goods

➢ **Goal: Plausibility check of predicted potential**

1. Current situation in Georgia and on the world market

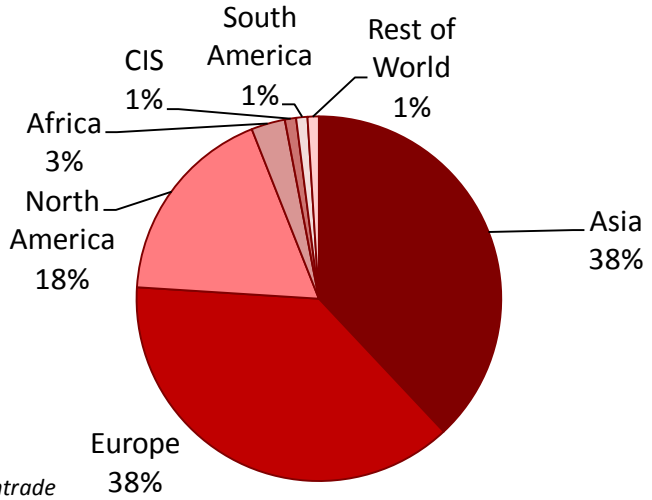
World market for four selected engineering goods

Imports of manufacturing goods 2012-2014



Source: UN Comtrade

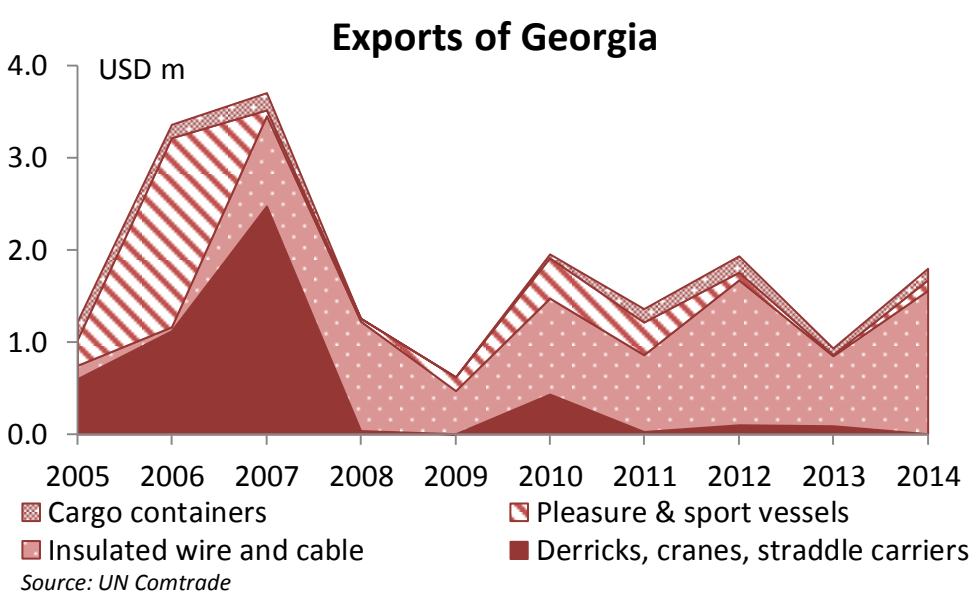
Exports of manufacturing goods 2012-2014

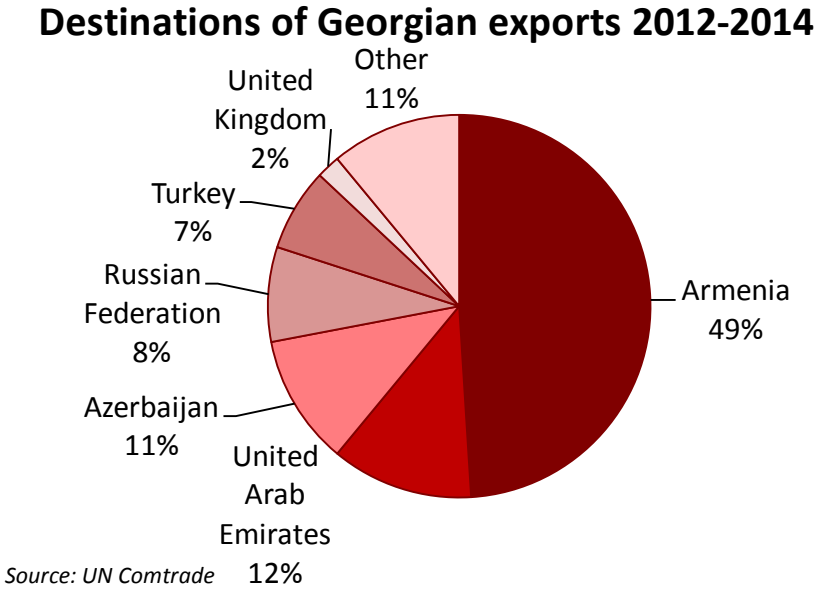


Source: UN Comtrade

- World market volume of ca. USD 135 bn
- Wire and cables account for around 75% of total volume
- Currently, main suppliers are China, USA, Germany and Mexico
- Growing global market, particularly growth of wire and cable market expected
- Prices for some inputs (e.g. copper) may rise in future
- Georgia has free access to the large European market

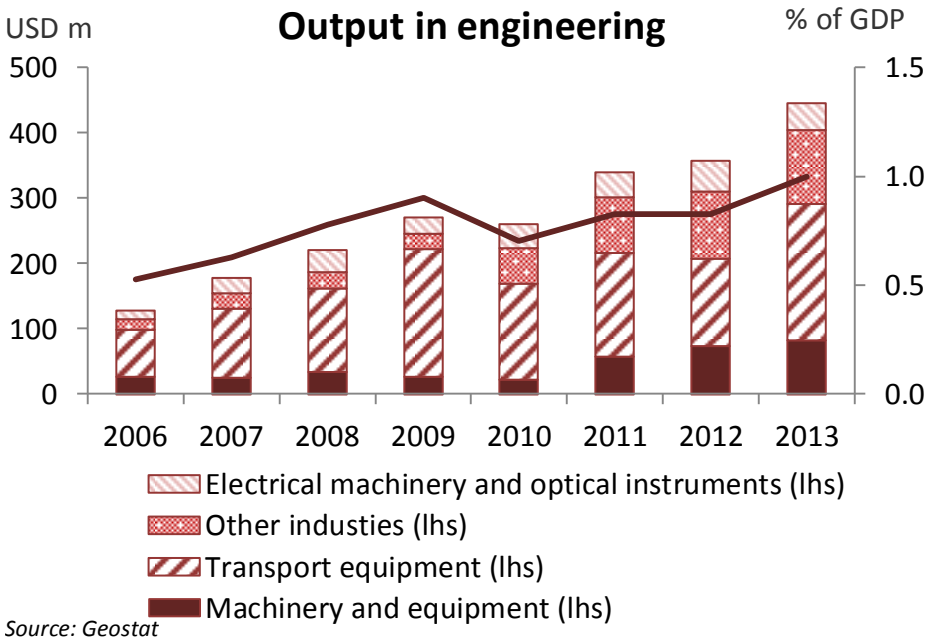
Georgia: Current exports of four selected engineering goods



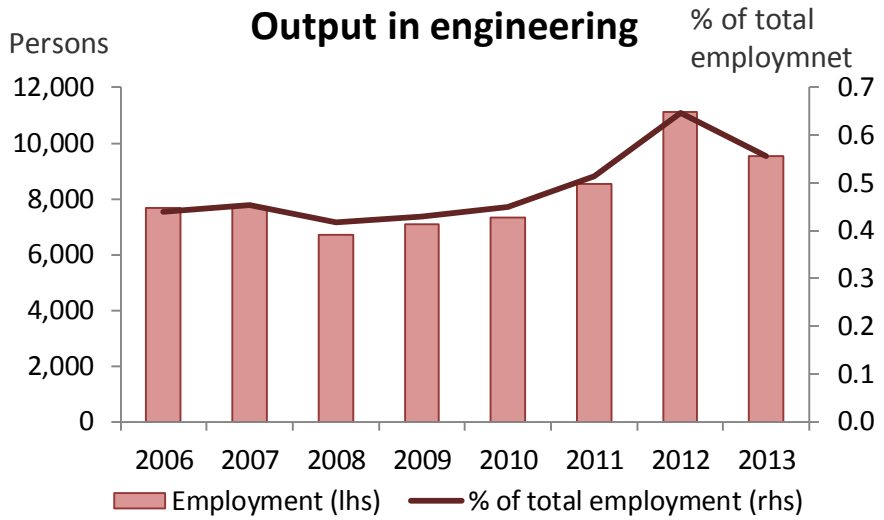


- Sakcable in Zestaponi produces insulated wires and cables using domestically produced copper and imported aluminum
- The Rustavi steel plant can produce shipping containers, but it is not a main business activity
- No domestic production of cranes, shipbuilding has essentially been discontinued, but shipyards existed in past
- Textile industry is often a precursor for other labour-intensive kinds of manufacturing (such as supply-chain integration in the car industry
- Investments into export-oriented textile fabrication have been recently made in West Georgia

The surrounding industry in Georgia: Engineering sector



Source: Geostat

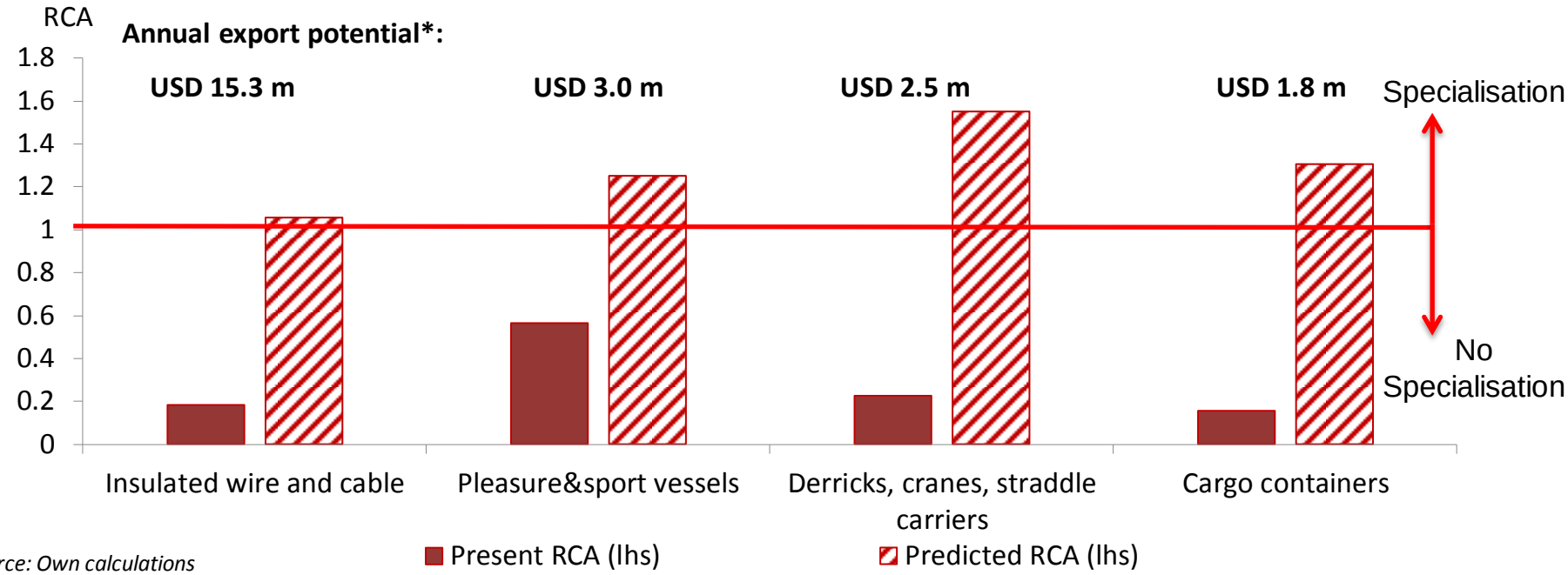


Source: Geostat

- Engineering sector is weak in Georgia with 1% of GDP and 0.55% of total employment
- Previously, there was large production e.g. in Kutaisi plant (broad range of goods), at Tbilaviamsheni (aircraft). These plants now only run at limited capacity
- Generally, most engineering activity stopped after the end of the USSR and a technology gap in capital and labour has opened up

2. Competitive potential of Georgia

Predicted potential for specialisation of Georgia



Source: Own calculations
**: Calculated on the basis of 2014 export volumes*

- Empirical paper by GET Georgia predicted potential for Georgia to develop specialisation in these goods
- Particularly high predictions for wire and cable
- Based on present specialisations of Georgia: Some underlying factors of other specialisations (metal industry, textiles) drive apparent potential in engineering
- **Is this potential real? => Substantiate through analysis of competitive factors**

Competitive factors for simpler engineering goods

- As the former engineering industry of Georgia has either been abandoned or is largely technologically outdated, significant potential can only lie in a re-start to the sector
- The goods here are of relatively little complexity (e.g. cables, containers) or have simpler variants that are more relevant for Georgia today (e.g. simpler cranes)

➢ Not analyse competitive factors for technology frontier goods, but for production of simpler engineering goods

- We identify **three factors**:
  - **Labour skills and costs**
  - **Business environment**
  - **Transport, logistics**
- Comparative analysis of Georgia against other Eastern European and Asian countries specialised in producing simpler engineering goods (Examples: Slovakia, Hungary, Moldova, Ukraine, China, Vietnam)

➢ Is Georgia able to be compete with these countries?

Competitive Factor 1: Human capital cost and skills

Importance

- Wage cost accounts for 15%-30% of total cost in engineering, depending on technological level

Competitive-ness of Georgia

- Wages are highly competitive:

Source: National statistics bureaus

- Limited workforce skills due to little production in engineering, often using old technology
- Public education (academic and vocational) in the technical field needs quality and quantity improvements
- Less problems for non-high-tech companies
- Collaboration with private vocational training institutions is possible

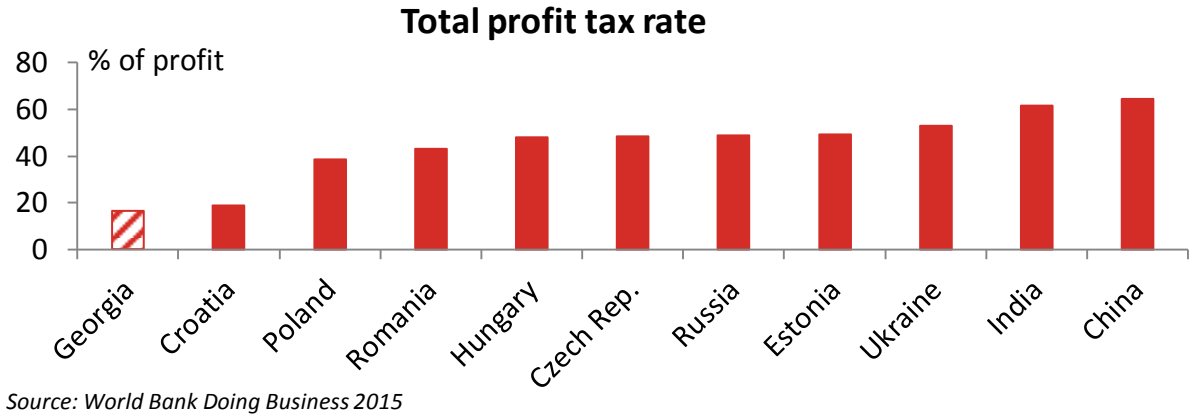
The bottom line

- **Very competitive wages but low skills base of workforce**
- **Initially most suitable for production requiring limited worker skills**

Competitive Factor 2: Business Environment

Importance

- Business environment plays a key role in attracting FDI



Source: World Bank Doing Business 2015

Competitive-ness of Georgia

- Top rankings in World Bank and other studies
- Few taxes, low rates (e.g. profit tax of 16.4%)
- Very low corruption and bureaucratic burden
- Only 2 days to set up new business – first place in ranking
- „Produce in Georgia“ initiative provides very cheap access to land, infrastructure, finance and consulting services

The bottom line

- **Excellent business environment, good political stability**
- **Lowest administrative and tax burdens in the region**

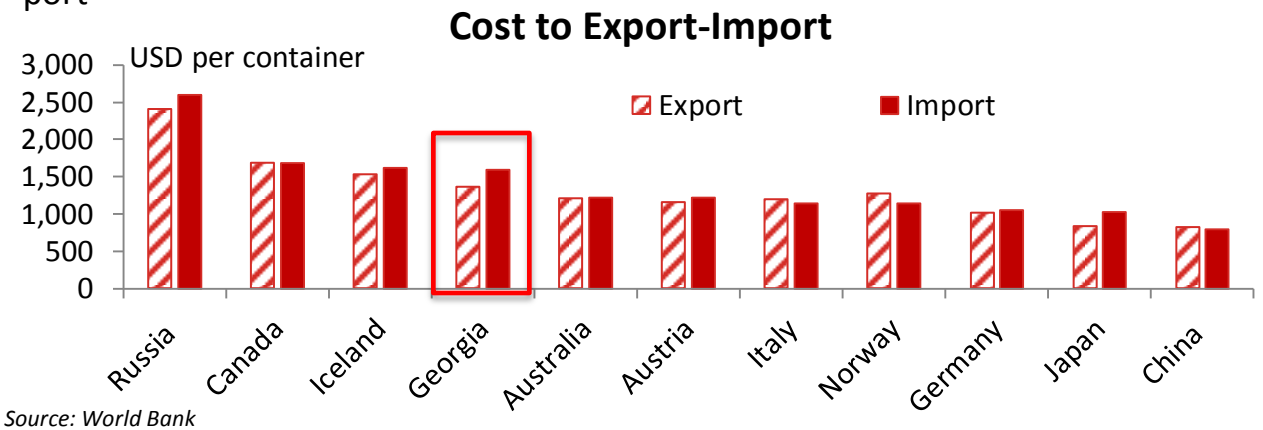
Competitive Factor 3: Transport

Importance

- Particularly for heavier goods, transport costs are an important consideration
- Supply chain integration requires reliable and cost-efficient transportation system

Competitive-ness of Georgia

- Ports in Batumi and Poti for small ships, planned deep-sea port in Anaklia could handle larger ships
- Road system undergoing investment, satisfactory connections along new East-West highway linking Tbilisi with Black Sea. Secondary roads are mostly in poor shape.
- Rail system under slow modernisation, not in good shape now, freight tariffs are relatively high
- Comparatively high freight cost at present due to state of rail system and lack of large port



Source: World Bank

The bottom line

- **Transport cost relatively high for large and heavy goods**
- **Lighter goods can be transported reliably using road transport along main highway**

Policy implications

- **Education:** Improvement of academic and vocational education in engineering/science field should be done in cooperation with international partners
- Improved programmes should be actively marketed to school leavers to increase size of qualified workforce
- **Transport:** Efficient rail and road transportation to possible locations of industry should be developed in conjunction with „Produce in Georgia“ programme
- **Communication:** Potential in engineering sector should be actively communicated to potential investors

Summary and evaluation

Current situation

- Very limited production in engineering sector
- Technology generally not up-to-date

Competitive factors

- Competitive wages, but limited qualifications of workforce
- Most suitable for companies requiring limited worker skills or able to invest in training
- Transport costs depend on type of good, less problematic for lighter goods using road transport along East-West highway
- Very good general business climate and political stability

Conclusion

- **Good potential labour-intensive production of simpler, lighter goods**
- **E.g. integration into automotive supply chains at low end such as wiring**
- **Gradually, more complex production may evolve**

Contact

David Saha

saha@berlin-economics.com

Olga Azhgibetseva

o.azhgibetseva@iset.ge

German Economic Team Georgia

c/o BE Berlin Economics GmbH

Schillerstr. 59, D-10627 Berlin

Tel: +49 30 / 20 61 34 64 0

Fax: +49 30 / 20 61 34 64 9

www.get-georgia.de

Twitter: @BerlinEconomics