Is South Africa Really a Giant of Sub-Saharan Africa in International Trade?

By

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Research Article

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ABSTRACT

The study investigated the comparative advantage of South Africa and the role played by export promotion. South Africa was found to have comparative advantage in 824 product lines. The country was found to be a giant player in Sub-Saharan Africa to the extent of surpassing other African countries such as Egypt, Mozambique, Botswana and Zimbabwe. South Africa also surpassed countries such as Mexico and Canada. The Sub-Saharan country should continue to promote its exports in international markets.

Keywords: Comparative advantage, Revealed comparative advantage, Export promotion.

INTRODUCTION

South Africa collects all duties in the Southern Africa Customs Union (SACU) and distributes to itself and its fellow members in the customs union. It has considerable influence in the affairs of this customs union. It is a member of the Southern African Development Community (SADC) and the strongest economy in the grouping. It is the largest trading partner of most of individual SADC member states. South Africa is also part of the recently launched Common Market for Eastern and Southern Africa (COMESA) - East Africa Community (EAC)- Southern African Development Community (SADC) Tripartite Free Trade Agreement. South Africa is trying hard to play a leading role in the Africa Union (AU).

This paper investigates whether South Africa has comparative advantage and the role played by export promotion in any given country.

Background

South Africa ended apartheid with democratic elections which took place in April 1994 (Mukherjee & Robinson, 1996). The country was rated at 134 out of 178 economies examined by World Bank 2008 Doing Business Report. The rating showed South Africa performed miserably on the indicators (South African Institute of International Affairs, 2008). The report focused mainly on the number of document, cost and time of import and export (South African Institute of International Affairs, 2008). According to Rashad (2007), South Africa trade policy has undergone several changes. These include reductions in tariffs and subsidies arising from World Trade Organizations commitments. The European Union- South Africa Free Trade Agreement became operational in January 2000, while Southern African Development Community (SADC) trade protocol was completed in 1996. South Africa has largely followed import substitution strategy as a strategy for development. South Africa’s exports composition has over the years changed tremendously. In the 1900s mineral export accounted for over 80% of the country’s global exports by South Africa. Gold exports in the 1960s accounted for 40% of global exports. South Africa’s trade composition has significantly changed with Gold accounting for 15% of its global exports. Agriculture contributes very little at 10%. Manufacturing is being focused but the challenges associated with diversification are still haunting South Africa.

According to Erasmus (2011), South Africa established Industrial Development Zones (IDZs) on 1st of December 2000 via Manufacturing Development Act. The objective of the Act is to promote manufacturing growth via the provision of incentives or concessions under the economic framework of South Africa. South Africa has a market access of its major trading partners through generalized systems of preference (GSP), the African Growth 

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and Opportunity Act, the free trade agreement with the European Union, the European Free Trade Association and the Southern African Development Community. South Africa developed a comparative advantage in capital-intensive primary and manufactured products due to its endowment and through protection mechanism (Edwards & Lawrence, 2006).

Export Promotion

Majority of the countries desire to expand foreign trade so that their economies can experience growth. Increased export earnings assist countries to adjust smoothly and reduces debt burden and are able to import too. Increased exports and imports help nations gain from foreign trade. These include ideas, technology, competition, economies of scale and establishment of domestic industries to meet the needs of new markets (Thomas & Nash, 1991; Mzumara, 2012b). Import protection affects a country very negatively through erosion of exporters’ confidence by increasing the cost of inputs and erosion of incentives of producing exportable goods (Mah, 2010; Mzumara, 2012b). Increasing exports through policy reforms in developing nations remains a big problem (Thomas & Nash, 1991). In developing countries, particularly in Africa a decision to encourage investment in production of exportable products is the most significant one. Such countries however, face a problem to identify constraints which may affect export performance (Bacchetta, 2007; Mzumara, 2012b). Exports constraints are classified in two groups namely those caused by supply bottlenecks and those caused by failure to promote exports and attract foreign direct investment (FDI) (Martincus & Carballo, 2007; Ahmed et al. 2008; Mzumara, 2012b).

According to Thomsen (1996) and Mzumara (2012b), export promotion is the major feasible development option for sustainable economic growth. The export promotion activities can be done through export promotion agencies (EPAs). The goals of an EPA are to help exporters and potential exporters to identify markets for their goods. The EPAs render services such as nation image building, export support services, marketing and market research (Laderman et al. 2006; Mzumara, 2012b).

According to McNiven (1991), export promotion activities are very wide ranging. They range from providing help for trade mission, securing exhibition space in trade fair to provision of intern programmes by local universities which seek to promote exports. Export promotion agencies assist firms in a country to overcome an environment of inadequate information. Firms regularly meet challenges in penetrating new markets (Martincus & Carballo, 2007; Mzumara, 2012b).

Comparative Advantage

Comparative advantage defines a tendency for nations to export those products which they are able to produce efficiently in comparison to the rest of the world (Serin & Civan, 2008). According to Widgren (2005), Hecksher-Ohlin theorem provides that the source of comparative advantage is factor endowment. This is supported by Mzumara (2006) that factor endowment determines comparative advantage. According to Khatibi (2008), the Ricardian theorem attributes comparative advantage to arise from the differences amongst countries based on factor scarcity. According to Mzumara et al (2012), this is not a correct position. Mzumara (2006) explains that factor endowment determines comparative advantage. This is supported by Widgren (2005). According to Mzumara (2006) a country with an abundant factor will use that factor intensively to produce products and export them. It will in turn import products which uses its scarce factor. The result will be emergency of specialization in products in which a country has comparative advantage in order to devote resources where it has comparative advantage. So a country that uses labour intensively will export labour intensive products and import capital intensive product as it will not be endowed with capital resources. So Khatibi (2008) assertion of giving importance to relative scarcity falls away as disadvantage has no role to play.

It is not the absolute advantage which is necessary. A country simply needs to have a comparative advantage in order to benefit from international trade. No matter how small the country is, it will have some products in which it is efficient and competent to produce. According to Neary (2002), comparative advantage determines the direction of trade. A country possesses a comparative advantage in producing a given product only if it is endowed with inputs utilized to produce a given product more intensively (Case & Fair, 2002). The source of comparative advantage is basically through factor endowment which constitutes labour, land and natural resources of a country (Case & Fair, 2002).

METHODOLOGY

Using Balassa, (1965):
\[ \text{RCA} = \left( \frac{X_{i,j}}{X_{w,j}} \right) / \left( \frac{X_{i,tot}}{X_{w,tot}} \right) \]

With:
- \(X_{i,j}\) denoting country \(i\)'s exports of product \(j\);
- \(X_{i,tot}\) denoting country \(i\)'s total exports;
- \(X_{w,j}\) denoting the world's (all countries) export of product \(j\); and
- \(X_{w,tot}\) denoting total exports in the world.

An RCA of equal and greater than 1 demonstrates that the country has Revealed Comparative Advantage. In other words, the exporting country is relatively specialized in producing and exporting the product code. An RCA of less than 1 demonstrates that the country has no Revealed Comparative Advantage and is not specialized in the product code (Balassa, 1965; Krugell & Matthee, 2009).

The authors have used the export data for South Africa for 2008, 2009 and 2010 obtained from the International Trade Centre (ITC)’s TradeMap. The export data for the world for the same period was also obtained from the same source. The data was obtained on 6-digit level, the most acceptable dis-aggregative international product classification.

RESULTS AND DISCUSSION

South Africa has 824 product lines with an RCA equal or greater than 1. That means South Africa has comparative advantage in the production of such products. South Africa is specialized in these products. Table 1 below shows top 50 products in which South Africa has the highest RCA.

| Product code | Product description                                                                 | RCA 2008  | RCA 2009  | RCA 2010  | Average RCA |
|--------------|-------------------------------------------------------------------------------------|-----------|-----------|-----------|-------------|
| 711039       | Rhodium in semi-manufactured form                                                   | 203.0357  | 214.0747  | 192.8537  | 203.3214    |
| 711019       | Platinum in semi-manufactured form                                                  | 113.8857  | 120.1697  | 126.7232  | 120.2595    |
| 261590       | Niobium, tantalum and vanadium ores and concentrates                                | 73.49905  | 134.8016  | 114.9777  | 107.7595    |
| 261400       | Titanium ores and concentrates                                                      | 104.2123  | 126.3092  | 86.4459   | 105.6558    |
| 261790       | Ores and concentrates                                                              | 18.12654  | 153.0822  | 144.5147  | 105.2411    |
| 720241       | Ferro-chromium, >4% carbon                                                         | 95.48695  | 116.3572  | 97.16413  | 103.0028    |
| 293991       | Cocaine, ecgonine, levometamfetamine, metamfetamine                                 | 110.5687  | 84.89725  | 84.07054  | 93.17882    |
| 320120       | Wattle tanning extracts                                                           | 86.52148  | 95.5541   | 93.7525  | 91.94314    |
| 250850       | Andalusite, kyanite and sillimanite                                                | 79.1809   | 100.791   | 89.8816   | 89.8867     |
| 750610       | Plates, sheet, trip and foil, nickel alloy                                        | 93.75941  | 57.76272  | 100.2124  | 83.9115     |
| 261000       | Chromium ores and concentrates                                                     | 70.66874  | 92.25563  | 82.38215  | 81.76884    |
| 720211       | Ferro-manganese, >2% carbon                                                        | 71.54378  | 79.16923  | 83.73852  | 78.15045    |
| 010632       | Live birds including parrots/parakeets                                              | 67.23145  | 96.61131  | 70.44619  | 78.09632    |
| 711031       | Rhodium unwrought or in powder form                                                | 59.68504  | 84.99906  | 71.13765  | 71.94058    |
| 261510       | Zirconium ores and concentrates                                                    | 74.64255  | 65.91589  | 71.56919  | 70.70921    |
| Code    | Description                                                                 | Value1  | Value2  | Value3 | Value4 |
|---------|------------------------------------------------------------------------------|---------|---------|---------|---------|
| 262021 | Leaded gasoline sludges<br>& leaded anti-knock compound sludges             | 109.0193| 97.48555| 0.65912 | 69.05465|
| 711029 | Palladium in semi-manufactured form                                         | 59.87162| 70.06298| 56.44785| 62.12748|
| 720292 | Ferro vanadium                                                              | 57.38094| 66.63211| 56.73376| 60.24894|
| 370400 | Photographic plate, film, paper expose undeveloped                          | 62.86082| 64.13078| 48.14169| 58.37776|
| 260200 | Manganese ores, concentrates, iron ores >20% manganese                       | 64.97563| 47.13326| 58.29663| 56.80184|
| 021092 | Meat & edible meat offal of whales/dolphins porpoises (order cetacean)      | 0       | 163.3601| 0       | 54.45338|
| 271091 | Heavy furnace oil (heating or motor fuel) <1% sulphur                        | 24.856669| 133.2647| 3.680727| 53.93404|
| 711041 | Iridium, osmium and ruthenium, semi-manufactured                            | 60.55213| 50.72728| 46.05341| 52.44427|
| 261690 | Precious metal ores and concentrates except silver                           | 80.44477| 54.7457 | 19.40127| 51.53058|
| 282010 | Manganese dioxide                                                            | 54.43944| 52.81015| 46.53247| 51.26069|
| 284130 | Sodium dichromate                                                            | 44.49053| 60.72892| 44.64866| 49.956604|
| 711011 | Platinum unwrought or in powder form                                         | 45.14424| 40.68703| 53.14097| 46.32408|
| 253010 | Vermiculate, perlite and chlorites unexpanded                                | 41.14203| 53.69742| 43.11004| 45.98316|
| 710590 | Dust of precious, semi-precious stones except diamond                        | 21.27253| 11.10571| 102.7535| 45.04392|
| 282530 | Vanadium oxide and hydroxides                                                | 30.15392| 47.61793| 56.72005| 44.24479|
| 260112 | Iron ore, concentrates, not iron pyrites agglomerated                        | 29.39152| 58.14401| 42.19882| 43.24479|
| 720219 | Ferro-manganese, < 2% carbon                                                 | 43.42541| 33.63018| 52.5162 | 43.1906 |
| 470200 | Chemical wood pulp dissolving grades                                         | 39.37499| 42.80666| 46.11747| 42.89253|
| 290129 | Unsaturated acyclic hydrocarbons                                             | 37.37499| 46.03843| 38.76221| 40.87458|
| 711049 | Iridium, osmium and ruthenium as sole precious metal                          | 21.3885 | 46.03843| 53.95838| 40.46177|
| 120890 | Flour or meal of oil seed, fruit except mustard, soy                          | 45.58108| 35.58629| 38.95243| 40.03993|
| 842139 | Filtering or purifying machinery for gases                                   | 44.14091| 31.01665| 31.90936| 35.68897|
| 200850 | Apricots, otherwise prepared preserved                                       | 30.73907| 37.14769| 37.69943| 35.1954 |
| 200840 | Pears, otherwise prepared or preserved                                       | 29.35476| 32.2095 | 36.89637| 32.82403|
| 291413 | 4 methylpentan-2- one (methyl isobutyl ketone)                               | 23.51753| 31.48091| 43.10984| 32.70277|
South Africa has the highest index in the production of rhodium whose index is 203. This is followed by platinum with an index of 120. The third position is occupied by niobium with an index of 107. It is followed by titanium ores and concentrates with an index of 106. The fifth position is occupied by ores and concentrates with an index of 105.

Amongst the top 50 product lines in which South Africa has comparative advantage include manufactured products, semi-manufactured products and primary products. South Africa surpasses Canada in the number of the products in which it has comparative advantage. Canada has only 814 product lines in which it has comparative advantage while South Africa has 824 product lines in which it has comparative advantage. South Africa also surpasses Mexico. Mexico has comparative advantage in 749 product lines in which it has comparative advantage in. South Africa has 824 product lines in which it has comparative advantage in manufactured products, semi-manufactured products and primary products. South Africa also surpasses Egypt. Egypt has 733 product lines in which it has comparative advantage in. South Africa has 824 product lines in which it has comparative advantage in manufactured products, semi-manufactured products and primary products. South Africa surpasses Egypt. Egypt has 733 product lines in which it has comparative advantage in. South Africa has 824 product lines in which it has comparative advantage in manufactured products, semi-manufactured products and primary products. South Africa also surpasses Mexico. Mexico has comparative advantage in 749 product lines in which it has comparative advantage in. South Africa has 824 product lines in which it has comparative advantage in manufactured products, semi-manufactured products and primary products. South Africa also surpasses Egypt. Egypt has 733 product lines in which it has comparative advantage in. South Africa has 824 product lines in which it has comparative advantage in manufactured products, semi-manufactured products and primary products. South Africa also surpasses Egypt. Egypt has 733 product lines in which it has comparative advantage in. South Africa has 824 product lines in which it has comparative advantage in manufactured products, semi-manufactured products and primary products.

CONCLUSIONS AND RECOMMENDATION

South Africa has the highest number in which it has comparative advantage well above Egypt. There is no doubt that South Africa is really a giant of Africa as it is able to surpass some developed countries such as Canada. It also shows it's mighty in trade by having comparative advantage in manufactured and semi-manufactured products. South Africa should continue promoting its exports.

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