

Trade as a driver of manufacturing structural change for sustainable development in South Africa

(Trade and Investment /Inclusive growth)

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Abstract

The National Development Plan (NDP), together with New Growth Path (NGP) the Industrial Policy Action Plan (IPAP) and South Africa Trade Policy and Strategy Framework (SATPSF) acknowledges that sustained growth and job creation requires structural change or the ability of the economy to constantly generate new fast-growing activities characterised by higher value added and productivity and increasing returns to scale, as also reflected in South Africa's current industrial policy. International trade can promote structural transformation through demand-side effects including expanding the size and scope of local business, which do not need to rely on the domestic market to grow further. Supply side effects include the potential for replacing imports as local producers capture market initially served by imports, thereby exposing local firms to foreign competition and technology, which may lead to significant productivity gains. This has been the experience of developing countries, in particular the so-called Asian Tigers, which have achieved a mature stage of economic and social development. This paper examines the role of trade in driving structural transformation for sustainable economic growth and employment in the context of South Africa's trade performance, as well as the composition and performance of its exports. Specifically, it evaluates the country's trade flows, looking at whether the necessary structural change or new trade patterns have emerged, and if not, why, where South Africa's trade performance could be improved and where the greatest benefits from trade can be reaped.

Keywords: Industrialisation, Industrial policy, Economic development, Comparative studies.

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1. Introduction

Since the onset of the financial crisis in 2008, South Africa's growth has lagged, aggravating the country's structural problems of high unemployment and inequality. Government adopted the National Development Plan (NDP) in 2012 to address these challenges. The NDP, together with New Growth Path (NGP), the Industrial Policy Action Plan (IPAP) and South Africa Trade Policy and Strategy Framework (SATPSF) acknowledges that sustained growth and job creation requires structural change or the ability of the economy to constantly generate new fast-growing activities characterised by higher value added and productivity and increasing returns to scale, as also reflected in South Africa's current industrial policy.

International trade promotes structural transformation through demand-side effects including expanding the size and scope of local business, which do not need to rely on the domestic market to grow further. Supply side effects include the potential for replacing imports as local producers capture market initially served by imports, thereby exposing local firms to foreign competition and technology, which may lead to significant productivity gains. This has been the experience of developing countries, in particular the so-called Asian Tigers, which have achieved a mature stage of economic and social development. Recognising the importance of trade in driving structural change for sustainable development, this paper examines the role of trade in driving structural transformation for sustainable economic growth and employment in the context of South Africa's trade performance, as well as the composition and performance of its exports. Specifically, it evaluates the country's trade flows, looking at whether the necessary structural change or new trade patterns have emerged, and if not, why, where South Africa's trade performance could be improved and where the greatest benefits from trade can be reaped.

One of the key findings of this paper is that there is only a limited number of manufactured products that the country can prioritise to increase the pace of transformation. South Africa needs to create trading advantages in order to accelerate growth and transformation, and to achieve this, the country requires both economies of scale and learning as well as a strategic approach to trade policy and a close link between trade and industrial policies. Gaining market access depends not only on flows of Foreign Direct Investment (FDI) but even more so on local firms emerging successfully from an expanding domestic market and connecting with regional and global value chains.

Also, sequencing and timing issues are fundamental to successful outcomes. Structural transformation advances by means of both creative and destructive forces that inevitably produce surprises, create tensions, trigger conflicts and generate trade-offs. Managing this process effectively requires the country to engage in a certain amount of experimentation in seeking the configuration of institutions and policies that will work best in its national conditions and accommodates the necessary transitions and adaptations.

The rest of the paper is organized as follows. Section 2 presents a comparative analysis of East Asia and Latin America in an attempt to illustrate how trade policy and trade-related structural change in both regions have contributed to the differences in growth and employment. In Section 3 we ask whether South Africa's economy is relatively open, and if so, to what extent has it engendered structural transformation. In Section 4 and 5 we consider some of the products and markets the country can take on so as to maximise the opportunities or potential gains inherent in BRIC's and Africa's trade. Section 6 concludes.

2. Trade, structural change and economic development

There is a shared sense that international trade has a strong potential to contribute to growth and poverty reduction. There are several examples of countries in which integration into the world economy was followed by strong growth and a reduction of poverty, but evidence also indicates that trade opening does not automatically engender growth. The question therefore arises, why the effects of international trade have been so different among countries of the world.

Winters et al. (2004) and Harrison and McMillan (2006) review the literature on trade and poverty, and on globalisation and poverty, respectively; while Goldberg and Pavnick (2007b) survey the studies on trade and inequality. Evidence suggests that trade opening is unlikely to produce beneficial results across all countries or households. Other studies claim that full liberalisation of trade in goods could have significant negative effects on Least Developed Countries (LDCs) in terms of production and employment (George, 2010), particularly when it has not in itself induced the necessary structural changes in the economy (UNCTAD, 2002; 2004; 2006; UNIDO, 2013). In the words of Justin Lin (2012), all countries that remain poor have been unable to diversify away from agriculture and the production of traditional goods into manufacturing and other modern activities. Ocampo and Taylor (1998) add that an increase of trade openness is a growth opportunity for a country only if local resources can be deployed in adequate quantities to produce goods for the external market. Domestic production capabilities have to be already in place in order to respond to international competition, improve technology and exploit trade opportunities from increased liberalisation.

Structural change based on trade openness – that is change in the sectoral composition of output and in the sectoral pattern of employment as the economy develops and opens – emerges a vital feature of the development process and an essential factor in explaining the rate and pattern of growth (McMillan and Rodrik, 2011). It can deter growth if its pace is too slow or its direction is inefficient (growth-reducing structural change) but can contribute to growth if it improves the allocation of resources across sectors from low-productivity to more productivity sectors and activities (growth-enhancing structural change). Hence, the pace and pattern with which this structural change takes place is the key factor that differentiates successful countries from unsuccessful ones.

There are four ways identified in the literature in which trade openness can drive structural change. First, the increase in revenues from trade integration induces exporters to upgrade technology (Bustos, 2011). Second, it exposes firms to forms of competition not present in the domestic market, provoking the reallocation of resources towards more productive uses (and enhances allocative efficiency). Third, it improves quality and raises productivity as foreign suppliers exert pressure over domestic suppliers (Weiss, 2005). Fourth, it provides access to advanced capital equipment and R&D. A country which gains access to capital goods is able to accumulate more capital compared to autarky, because this access raises output per worker and thus learning by doing (Goh et al, (2002).

This section conducts a comparative analysis of East Asia and Latin America in an attempt to illustrate how trade policy and trade-related structural change in both regions have contributed to the differences in growth and employment. The contrasting experiences of East Asia and Latin America provide useful explanations as to why the pattern of trade-induced structural transformation differs among countries. While East Asia has become one of the most successful industrialised economies, aided by liberalisation, Latin America has seen de-industrialisation and growth-reducing structural change despite significant liberalisation efforts. The East Asian Tigers were able to transform opportunities coming from the global market into structural change-driven industrialisation with the help of sophisticated industrial policies.

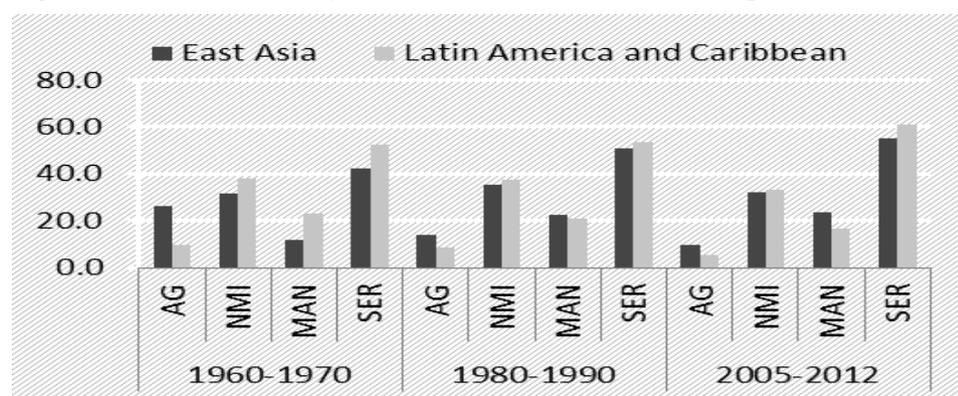
While several factors contributed to the divergence in growth performance in these two regions (such as high rates of fixed investment and savings, among others); differential patterns of structural change account for the bulk of the difference in regional growth rates. This can be seen by looking at the respective contributions of agriculture, non-manufacturing industry, manufacturing and services sectors to Gross Domestic Product (GDP) at different points in time presented in Figure 2.1.

Typically most attention is paid to the size of the manufacturing sector as economic development is often thought to be closely associated with industrialization (Lewis, 1954). Two important patterns emerge from Figure 1. First, rapid GDP per capita growth between 1960 and 1970 witnessed in Latin America and Caribbean was accompanied by structural change away from agriculture to manufacturing and services sectors. However, the pace of structural change slowed afterwards following a shift in production structure towards services,

with manufacturing share in value added declined from 23 per cent in 1960-1970 to 17 per cent in 2005-2012, pointing to deindustrialisation.

On the contrary, the shift of resources from agriculture to manufacturing entails static and dynamic structural gains in East Asia. Between 1960 and 1970, the agriculture sector accounted for 26 per cent of GDP, and manufacturing for 12 per cent. By 2012, agriculture accounted for only 10 per cent of GDP and manufacturing doubled.

Figure 2.1: Value – added by sector as share of GDP (at current prices, 1960 – 2012)



Note: AG is agricultural sector, NMI is non-manufacturing industry (comprises of mainly mining), MAN is manufacturing, and SER is services (comprises of trade, transport, communication and others)

Source: UN statistics

As resources moved from traditional activities to new ones, so did labour, leading to some productivity gains in East Asia (Table 2.1). This contrasts with the pattern observed in Latin America, where workers who moved out of agriculture were mainly absorbed in the (formal and informal) services sector. The agricultural employment share fell from 47 per cent in 1960 to 14 per cent in 2010. At the same time, services expanded from 32 to 64 per cent of the total workforce. Disaggregating the services sector suggests that the biggest employment expansion occurs in trade and distribution services, although other community, personal and household services expanded rapidly as well.

Table 2.1: Employment share by sector, 1960-2010

Region		1960	1975	1990	2010
East Asia	AG	48	43	32	21
	NMI	4	5	7	8
	MAN	15	18	19	15
	SER	33	34	42	56
Latin America and Caribbean	AG	47	34	25	14
	NMI	7	9	9	10
	MAN	14	15	15	12
	SER	32	42	51	64

Source: Groningen Growth and Development Centre (GGDC)

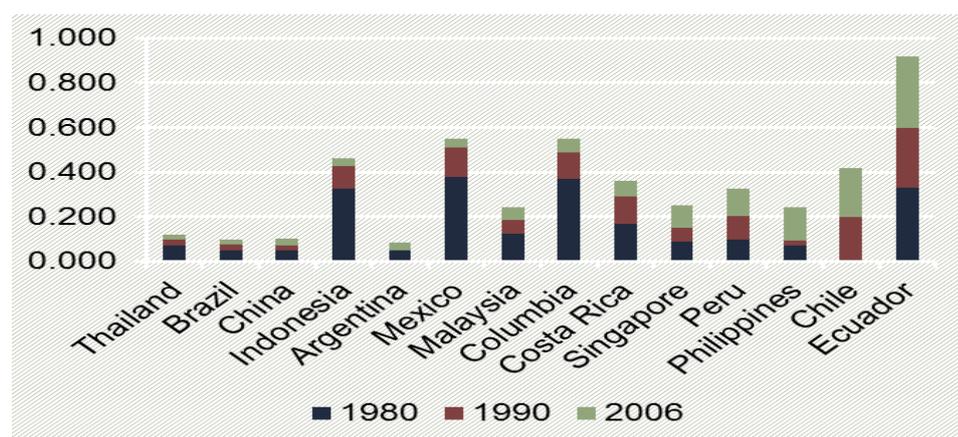
The various aspects of structural change in production are linked to changes in trade. The rising role of many Asian countries in international trade reveals high industrial performance and trade-induced structural transformation. In the case of Latin America, this was explained by a greater propensity to export rather than an expansion of domestic manufacturing products.

Within manufacturing, structural change takes place as diversification occurs. Lederman and Maloney (2007), Agosin (2007) and Hesse (2008) emphasize on the diversification of export basket as one of the important determinants of economic growth. Efforts to achieve diversification that departs from traditional comparative advantages can start the growth process. Countries that export products that are related to the export profile of high-income countries tend to converge quickly to these higher income levels and, therefore, grow faster. As such what a country exports matter more than how much a country exports.

Export diversification spurs economic growth through two channels (Agosin, 2007). The first is the portfolio effect: when exports are more diversified, their earnings are less volatile and as a consequence the variance of economic growth is also lower. Second, there are dynamic effects associated with diversification, referring to increases in productivity when countries diversify their exports and output base. This process is associated with the accumulation of skills, learning by doing and externalities linked to the production of non-traded inputs. Together with higher rates of fixed investment, Agosin shows that more diversified exports explain most of the difference in economic growth between East Asia and Latin America.

Export diversification or concentration is measured here using the Herfindahl Hirschman index (HHI), and is calculated using a 5 digit breakdown of the Standard International Trade Classification (SITC, Rev.2). The lower the HHI, the less concentrated or more diversified exports are (see Appendix 1 for the formula). Figure 2.3 illustrates the results.

Figure 2.3: Export diversification 1980-2006 (Hirschman Herfindahl index)



Source: COMTRADE, UNIDO database

Broadly, exports are more diversified in East-Asia countries compared to Latin American countries, although there are several exceptions. Levels of export diversification differ strongly among countries, and should be understood in the context of different characteristics of nations that reduce export concentration (e.g. per capita income, country size, share of manufactures in exports and trade opening – Klinger and Lederman 2006; Cadot et al, 2011) and others that have the opposite effect (e.g. natural resource endowments). These factors seem to explain relatively well the positions of countries at the low-end and high-end of export concentration (Figure 2.3).

The less concentrated exports in East Asia compared to Latin America also result in part from better access to inputs for export production at world prices, a more competitive real exchange rate, and easier access to subsidised credit (Weiss, 2005). East-Asia has also been more successful than Latin America in creating new dynamic comparative advantages for its exports over time, with considerable spill-overs to economic growth (Table 2.2). This can be studied using the revealed comparative advantage (RCA) analysis framework proposed by Balassa. A number exceeding one shows that a country's share in world exports of a product is larger than its overall share in world exports.

In the 1960s and 70s, both Latin America and Asia had comparative advantages in products such as food, crude materials and animal and vegetable oils. Over time, Latin America has remained highly specialised in commodities and commodity intensive manufactures, as expected for a region with abundant natural resources, including petroleum, minerals and land.

Some state that natural resources may have acted as a “curse” for the development of the region, as the high profitability of their exploitation, requiring little technology, hindered the upgrading of its exports (Kuwayama and Durán, 2003).

Table 2.2: Revealed comparative advantage (RCA), 19980-2005

	Latin America (8)				East Asia (5)			
	1980	1990	2000	2005	1980	1990	2000	2005
Food and live animals	3.9	3.1	2.5	2.8	1.2	1.3	0.9	0.7
Beverages and tobacco	1.0	1.1	1.3	1.5	0.4	0.6	0.5	0.3
Crude materials, inedible	2.1	2.5	2.4	3.3	2.6	1.5	0.8	0.7
Mineral fuels, lubricants	0.7	2.0	0.9	1.2	1.7	2.0	0.8	0.7
Animal vegetable oils and fats	3.9	4.8	3.0	3.4	5.3	4.3	3.0	2.6
Chemicals	0.5	0.6	0.5	0.5	0.4	0.5	0.5	0.5
Manufactured goods	0.9	1.3	1.0	1.0	0.6	0.8	0.8	0.9
Machinery and transport	0.3	0.4	0.9	0.8	0.3	0.7	1.1	1.2
Misc. manufactured activities	0.4	0.4	0.8	0.7	0.9	1.4	1.7	1.7
Commodities not classified	0.3	0.4	0.3	0.1	2.7	1.2	0.3	0.3

Source: COMTRADE database, excluding China and Vietnam

The story of East-Asia is different, particularly since 2000: the region reduced its comparative advantage in foodstuffs and raw materials, while increasing substantially its advantages in manufactures.

In summary, it is certainly true that firms that are exposed to foreign competition have no choice but to either become more productive or shut down. As trade barriers come down, industries have rationalised, upgraded and become more efficient. But an economy’s overall productivity depends not only on what is happening within industries, but also on the reallocation of resources across sectors (otherwise known as structural change). This is where globalisation has produced a highly uneven result as observed in the above analysis of Asia and Latin America. This divergence of performances in both regions is a fundamental reality of developing societies. Hence, structural change is the key to significant and sustained growth, and opening up a country to international trade in itself does not (has not) lead to such structural change. The relative success that East Asia has achieved in terms of export growth and structural change is a reflection of the greater success in the evolution of its comparative advantage and in the ability of its industries to adjust to trade reforms. In contrast, the Latin America specialized according to its static comparative advantages in sectors that offered fewer opportunities for diversification and improvements in product quality.

3. Benchmarking South Africa's Trade

Is South Africa's economy relatively open, if so, to what extent has it stimulated structural transformation and where can the greatest benefits from trade be reaped? In this section we attempt to respond to these topical questions.

Evolution of trade reform in South Africa

Prior to 1990s, South Africa's trade regime was characterised by a high and complex tariff structure and extensive import controls. South Africa had a very restrictive trade regime, with an unweighted average tariff rate of 25 per cent, a battery of import controls that covered some 15 per cent of tariff lines, and a large export subsidisation scheme.

However, 1994 signalled an important shift in South Africa's development strategy, from export promotion with import controls to greater openness through tariff liberalisation. Amongst other initiatives to re-integrate is South Africa's commitment, in the 1995 General Agreement on Trade and Tariffs (GATT) Uruguay Round under the auspices of the World Trade Organisation, to bind 98 per cent of all tariff lines, rationalise the over 12 000 tariff lines and replace quantitative restrictions on agricultural products with tariffs (Cassim et al, 2004, Edwards 2005). Trade reform was accompanied by a number of government policies, including the "Growth, Employment and Redistribution" (GEAR) strategy (RSA 1996). In conjunction with increasing multilateral liberalisation, government has also engaged in a number of bilateral and regional trade negotiations and agreements such as SADC Free Trade Protocol and South Africa-European Union Trade Development and Cooperation Agreement (TDCA).

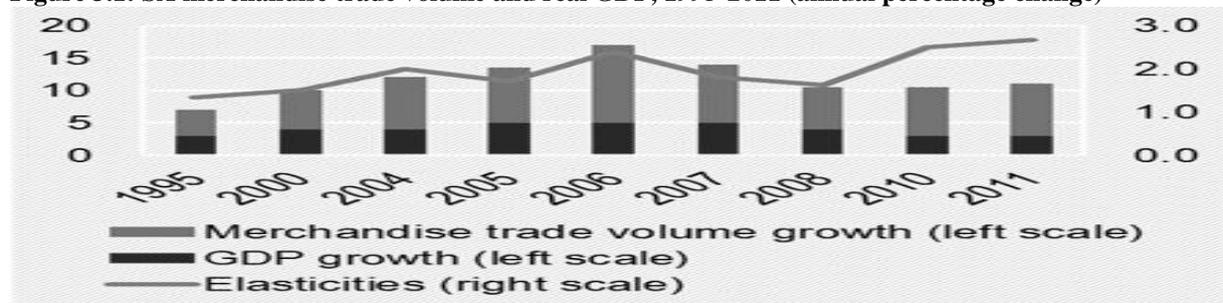
The impact on trade flows

Trade tariffs and trade liberalisation are instruments of policy. The relevant measure of effectiveness of policies is whether they contribute to desired change in trade flows. We learnt from the East Asian experience in the preceding section that trade liberalisation on its own cannot lead to sustainable growth and employment unless it engenders structural change. The degree of prosperity realised from trade depends on what a country trades on, how much it can trade and who it can trade with. In this section we assess the impact of trade liberalisation on South Africa by simply tracking trade trends, looking at whether the

necessary structural change or new trade pattern has emerged, and if not, why, where South Africa trade performance could be improved and where the greatest benefits from trade can be reaped.

As a result of trade liberalisation, South Africa’s trade has expanded enormously over the past two decades. The most significant fact about South Africa’s trade since 1995 is that it has grown much faster than its output for most of this period. This is illustrated by Figure 3.1, which shows annual growth rates for the volume of South Africa’s merchandise trade (i.e. the average of exports and imports) and the country’s real GDP growth, together with implied elasticities of trade with respect to its GDP (defined as the percentage change in trade volume corresponding to a 1 per cent change in real GDP).

Figure 3.1: SA merchandise trade volume and real GDP, 1995-2011 (annual percentage change)



Note: Merchandise trade (the average of exports and imports) in volume terms, that is they are adjusted to account for inflation and exchange rate movements. Elasticity is shown as a solid line and is measured against the right axis. Trade and GDP growth are represented by vertical bars and are measured against the left axis.

Source: WTO database

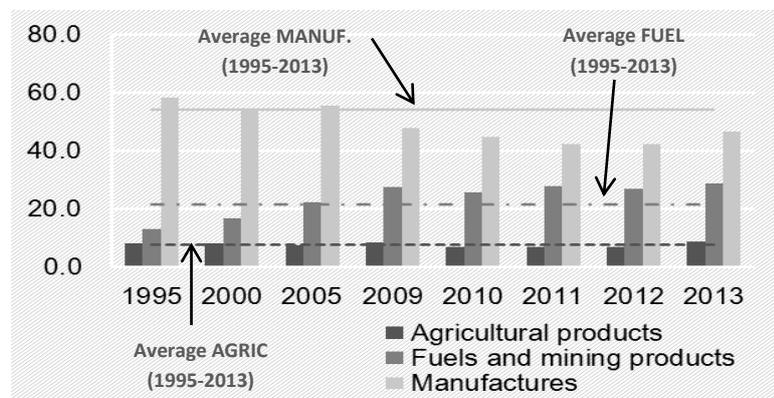
Has the structure of trade changed?

Just as the relative importance of South Africa in international trade has shifted over time, so has the mix of traded goods. As such, to what extent have trade flows contributed to the process of structural change and how the contribution compares to international experience from the liberalising economies.

Figure 3.2 shows that South African exports and imports are concentrated in manufactured goods. Despite the marginal gain recorded in 2013, the share of manufactured goods in total merchandise trade still remained below average of 54 per cent for the period 1995-2013. The sector is yet to reclaim the 2009 pre-crisis levels. Manufactures accounted for 65.3 per cent in 1996-1999, but this declined to 54.7 per cent in 2000-2003 to 53.7 per cent in 2004-2007 and finally to 44 per cent in 2010-2013. Agricultural products saw their share in South Africa

trade increased from 7.8 per cent at the turn of the last decade to 8.3 per cent in early 2000 before declining again to 7.2 per cent in 2004-2007, and finally to 7.5 per cent in 2010-2013.

Figure 3.2: share in South Africa merchandise trade by sector



The major categories of South African exports and imports are presented in Table 3.1. Nominal merchandise exports rose 13.8 per cent over the period 2010-2013 while imports rose 15.2 per cent. South Africa's export profile remains resource based, with mineral products and precious stones accounting for almost 50 per cent of total exports between 2010 and 2013. The top five export product groups grew at double digits except precious stones which recorded a negative average annual growth rate of 0.2 per cent in the same period. Import profile is dominated by a mixture of capital equipment and consumer goods. The top five import products recorded significant declines during the period 2010-2013.

Table 3.1: Major export and import categories

No.	Export industries	2002-2005			2006-2009			2010-2013		
		\$ billion	Share	Growth	\$ billion	Share	Growth	\$ billion	Share	Growth
	Total	113	72.0%	15.7%	159	79.2%	6.2%	219	79.3%	13.8%
1	Mineral products	222	14.2%	11.7%	354	17.7%	22.7%	688	24.9%	23.3%
2	Precious stones	371	23.6%	12.7%	513	25.6%	6.1%	655	23.7%	-0.2%
3	Basic metals	264	16.8%	13.4%	348	17.4%	4.5%	380	13.8%	21.2%
4	Transport equipment	139	8.9%	13.2%	184	9.2%	7.4%	246	8.9%	17.1%
5	Machinery and appliances	133	8.5%	13.9%	188	9.4%	3.0%	220	8.0%	17.8%
	Total	114	71.5%	22.6%	168	72.9%	6.6%	226	72.6%	15.2%
1	Machinery and appliances	432	27.1%	11.6%	593	25.8%	5.5%	770	24.7%	-15.1%
2	Mineral products	228	14.3%	13.9%	489	21.3%	9.9%	687	22.0%	-18.9%
3	Transport equipment	180	11.3%	24.4%	241	10.5%	-3.6%	329	10.6%	-14.6%
4	Chemical products	160	10.0%	9.0%	199	8.6%	10.2%	284	9.1%	-13.7%
5	Parts for motor vehicles	139	8.7%	15.3%	154	6.7%	-5.3%	192	6.2%	-13.7%

Source: International Trade Centre, COMTRADE

The country's emerging performing export sectors probably also include a number of sectors where South Africa's market share is falling despite growing world market, such as the Electrical and electronic equipment. The Electrical and electronic equipment has been the basis of Chinese trade growth over the last two decades. While the country is a large net importer of this sector's products (import/export ratio is greater than 1), the sector is showing some promise with over 2 per cent of exports in these products in 2007 and 2013.

Evidence shows that South Africa's widened exposure to the rest of the world has not in itself induced the necessary structural changes in the economy to significantly alter the export basket. Unless an effort to deepen specialisation is mustered, and over-reliance on traditional goods is tempered, the pace of structural change and industrialisation will remain slow, and the country will remain overexposed to trade shocks, and the inequality generating forces of international asymmetries will not be tamed. The country needs to build its industrial development strategies around developing its relative advantages. As such, trade opening should address the structural problems that are constraining competitiveness while improving productivity, logistics, and skills development

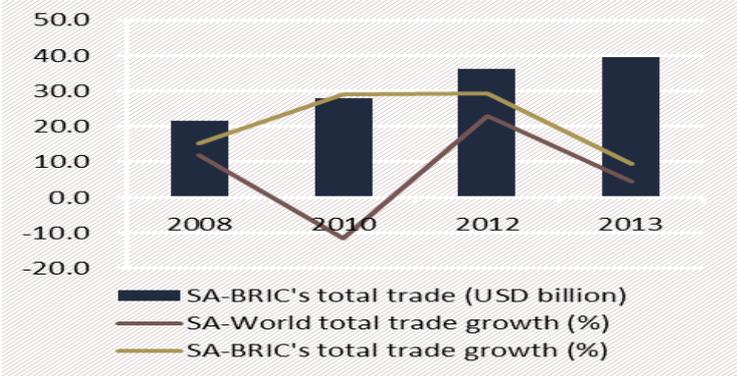
4. Impact of BRIC's expanding consumption on SA trade

The last two decades have seen an important change in the global economic landscape, a shift in wealth, led by China, India, Brazil and Russia (often referred to as BRIC). These economies are among the world's top 10 largest middle class consumers, with over USD 25 trillion projected to be spent by 2030 (Kharas, 2011). Meanwhile, in 2010, South Africa was invited to join the group, which was then referred to as BRICS. The country has also seen greater trade intensity with this group, particularly with China and India in the recent decade. This relationship has the potential of becoming a key source of economic transformation and sustainable development if monitored closely to ensure that the country makes the most of the benefits stemming from it.

In this chapter, we consider some of the products and markets the country can take on so as to maximise the opportunities or potential gains inherent in BRIC's trade. Data is taken from COMTRADE unless otherwise stated.

The successful experience of the BRIC and other emerging economies over the past half century has simply demonstrated that trade can be an important stimulus to structural transformation and sustainable development (as already discussed in section 1). Their external trade (exports plus imports) has surged to about US\$ 5 trillion (or 15 per cent of the world’s total) in 2013 from US\$ 3 trillion in 2007. Total demand by BRIC’s (or imports) accounted for 16 per cent of world’s total in 2013, affording a substantial market for goods. South Africa’s trade response has been strong, trade with BRIC has grown faster than with any other countries and/or regions in the world (after Africa), increasing by more than 30 per cent since its inclusion in 2010 to US\$ 39.5 billion in 2013 (Figure 4.1). The sluggish pace of the country’s trade growth in 2013 was due to slower global recovery and uncertainty in advanced economies which affected emerging economies. However, most such trade is in primary commodities, resource-intensive and low-technology-intensive goods with few linkages to the rest of the economy (as already observed in Section 2).

Figure 4.1: Overall South Africa’s trade with BRIC’s



Identification of trade opportunities in manufactured products

Structural change is enhanced if South Africa expands its exports in value added products compared to focussing in resource based products. The key objective here is to identify manufactured products which South Africa can exploit depending on whether it has comparative advantage on those products. To assist in identifying opportunities for manufactured products that can help to achieve structural change and prevent industrial decline, we divide export products into four groupings (rising opportunities, lost opportunities, falling opportunities, limited opportunities) according to the following criteria.

- Rising opportunities: South Africa exports dynamic manufactured products where growth in partner's demand is faster than the average, and increases its market share. This is the best case scenario.
- Lost opportunities: South Africa exports dynamic manufactured products, but loses market share.
- Falling opportunities: South Africa export manufactured products for which partner's demand is growing at less than the average, but nonetheless increases the market share.
- Limited opportunities: South Africa export manufactured products for which partner's demand are growing at less than the average, and is losing market share. This is the worst case scenario.

The share of South Africa exports is derived from total exports for product 1 to country 1 compared with what country 1 is importing of product 1. Products that fall under rising and lost opportunities are dynamic products given the consistency in the partner's demand growth rate over the years. We now attempt to use the framework identified above to detect manufactured products that South Africa can take advantage of. It should be noted that only manufactured products in which South Africa has comparative advantage with the respective BRIC country are considered.

The results for the respective BRIC countries are given in Tables 4.1, 4.2 and 4.3 below.

Table 4.1: Export opportunities for SA manufactured products to Brazil (%)

Sector	Growth in Brazil's demand		SA's market share		RCA	Eport opportunities
	2011-2013	2013	2011	2013	2013	
Plastics	11.4	11.1	1.0	1.3	Increasing	Falling opportunities
Miscellaneous chemical products	18.6	22.5	1.7	2.0	Increasing	Rising opportunities
Organic chemicals	8.4	8.3	0.8	0.6	Decreasing	Limited opportunities
Rubber	7.4	4.7	0.6	0.3	Increasing	Limited opportunities
Fertilizers	27.4	3.5	0.0	0.1	Increasing	Falling opportunities
Impregnated, coated or laminated textile fabric	4.5	5.2	0.1	1.2	Decreasing	Rising opportunities
Glass and glassware	12.9	6.3	1.3	0.3	Increasing	Limited opportunities

South Africa witnessed rising export opportunities in two manufactured products, miscellaneous chemicals (predominantly insecticides, fungicides herbicides packaged for retail sale) and impregnated, coated or laminated textile fabric (although with decreasing level of competitiveness). Brazil's demand for these products in 2013 grew faster than the average (2011-2013) and South Africa managed to capture a portion of the increasing demand. This provides an opportunity to expand exports further.

However, while the market share for plastics and fertilizers have increased, the demand for the products by Brazil have declined, and given the modest economic growth projection for Brazil, South Africa may continue to expect less than average growth in Brazil's demand (or falling opportunities) for these products in the near future. Moreover, the country witnessed limited export opportunities with respect to organic chemicals, rubber and glass and glassware.

Table 4.2: Export Opportunities for SA Manufactured Products to Russia (%)

Sector	Growth in Russia's demand		SA's market share		RCA 2013	Eport opportunities
	2011-2013	2013	2011	2013		
Beverages	20.5	13.4	0.4	0.8	Increasing	Falling opportunities
Furskins and artificial fur	49.3	22.8	0.6	0.5	Increasing	Limited opportunities
Salt, sulphur etc.	37.9	41.9	0.2	0.3	Increasing	Rising opportunities
Vehicles	48.3	17.8	0.1	0.2	Increasing	Falling opportunities
Albuminoids, modified starches, glues, enzyme	14.7	8.3	0.0	0.1	Increasing	Falling opportunities
Inorganic chemicals	15.6	13.5	0.0	0.1	Increasing	Falling opportunities
Machinery	28.7	11.9	0.0	0.0	Decreasing	Limited opportunities

South Africa experienced rising export opportunities in one manufactured product, salt, sulphur, etc., although this did not feature in the top 10 export list. Russia's demand for this product grew 1.1 times more than the average in 2013 and South Africa managed to capture 0.1 per cent of the increasing demand. The country has also gained more comparative advantage. This provides an opportunity to expand exports further.

However, while the market share for beverages (mainly wine), vehicles, albuminoids and inorganic chemicals have increased, the demand for the products by Russia has declined, and given the modest economic growth projection for Russia, South Africa may continue to expect less than average growth in Russia's demand (or falling opportunities) for these products in the near future. Moreover, the country witnessed limited export opportunities with respect to foreshins and machinery.

Table 4.3: Export Opportunities for SA Manufactured Products to India (%)

Sector	Growth in India's demand		SA's market share		RCA 2013	Eport opportunities
	2011-2013	2013	2011	2013		
Pulp of paper	7.6	6.6	5.7	5.8	Decreasing	Falling opportunities
Tanning, dyeing extracts, tannins, derivs, pigments et	10.0	4.6	0.8	1.1	Increasing	Falling opportunities

South Africa's trade with India is characterised by export of primary commodities. As such, the manufactured products that the country needs to prioritise to increase the pace of transformation are very limited. The country witnessed falling export opportunities with respect to pulp of paper and tanning products (table 3.3). Nonetheless, given the rapid

economic growth projection for India, South Africa could experience more than average growth in India's demand for these products in the near future. Meanwhile, it is important to note that there was contraction in India's demand for inorganic chemicals, salt, sulphur etc., and glass and glassware in 2013. As a result, these products were not considered in the analysis; despite that South Africa has comparative advantages in them.

In terms of manufactured products, South Africa has virtually no manufactured product that it has comparative advantage with China. This implies that there are no export opportunities for manufactured products to China given the loss in comparative advantage over the years.

While China (and to a lesser extent India) has become an important trading partner for South Africa, China's exports to South Africa and the rest of the continent compete with the domestic manufacturing sector. On the other hand, trade with Brazil falls short of the deemed potential and is quite negligible; yet the composition of exports to the country is mainly in more value-added manufactured goods. Minerals beneficiation is an important element for structural transformation and the industrialisation of South Africa. It will ensure that more value is added to domestic mineral products before exporting them.

Having said that, South Africa needs to boost exports in those products that are in demand in which it has gained more comparative advantage. In addition, the South Africa can also raise its competitiveness, particularly in those manufactured products which are in demand but in which it is losing or has lost comparative advantage, such as impregnated or coated textile fabric (with respect to Brazil); optical, photos, medical apparatus, residues etc., and photographic or cinematographic goods (Russia); pulp of paper, paper and paperboard and explosives (India) and tobacco, tanning and fish, crustaceans etc. (China).

South Africa has to capitalise on its inclusion in BRICS to develop sectors that have potential in transforming the economy, increase the quality of products and move up the value chain.

5. Focus on Africa

Over the past two decades, South Africa's economic prosperity has become increasingly intertwined with that of the rest of the continent. Africa's growth is projected to accelerate to 4.8 per cent in 2014 and 5.7 per cent in 2015. Looking at regional level, West and East Africa are projected to be the fastest growing regions. An assumption underlying this overall favourable outlook is that the world economy will strengthen and political and social stability in some African countries, which have been affected by conflicts, will improve (AfDB et al, 2013). These will likely boost consumer demand for goods and services and is expected to increase demand for African and in particular South African merchandise.

Whilst we acknowledge that some of the African countries belong to more than one trading bloc, the analysis that follows paint a picture of the respective importance of each trading bloc with South Africa. In this chapter, we consider some of the products and markets the country can exploit so as to maximise the opportunities inherent in Africa. The analysis adopts the same methodology discussed in Section 4 in order to detect manufactured products that South Africa can take advantage of. The results are depicted in tables 5.1, 5.2, 5.3 and 5.4 and are discussed below.

South Africa's trade with SADC

Evidence shows that South Africa lost export opportunities to SADC in salt, sulphur, etc., printed books and inorganic chemicals. The country did not manage to capture a portion of the increasing SADC's demand for these products in 2013. Yet there was an opportunity to expand exports further.

Table 5.1: Export opportunities for SA's manufactured products to SADC (%)

Sector	Growth in SADC's demand		SA's market share		RCA 2013	Eport opportunities
	2011-2013	2013	2011	2013		
Explosives	15.7	9.4	57.2	46.7	Decreasing	Limited opportunities
Furniture	9.5	1.0	18.9	14.4	Decreasing	Limited opportunities
Sugars and sugar confectionary	11.1	7.8	24.5	26.0	Decreasing	Falling opportunities
Fertilizers	61.0	37.9	7.0	14.7	Decreasing	Falling opportunities
Salt, sulphur, etc.	13.6	14.3	21.4	15.8	Increasing	Lost opportunities
Beverages	10.8	6.0	24.0	21.8	Increasing	Limited opportunities
Cereals	16.1	2.5	11.1	13.1	Decreasing	Falling opportunities
Cereal, flour, starch, milk preparations	12.7	4.1	24.7	25.3	Increasing	Falling opportunities
Tanning, dyeing extracts, tannins, derivs, pigments etc	5.9	2.7	21.3	20.7	Increasing	Limited opportunities
Coffee	6.2	3.9	27.5	29.7	Increasing	Falling opportunities
Rubber	11.8	1.7	15.4	15.4	Decreasing	Limited opportunities
Printed books	2.5	12.0	16.0	10.9	Decreasing	Lost opportunities
Tools, implements, cutlery, etc of base metal	9.6	3.3	15.4	13.5	Decreasing	Limited opportunities
Plastics	9.8	3.1	16.1	16.0	Decreasing	Limited opportunities
Inorganic chemicals	10.7	13.0	7.7	6.2	Decreasing	Lost opportunities
Footwear	12.3	9.8	13.1	11.0	Increasing	Limited opportunities

The market shares for sugars, fertilizers, cereals, cereals, flour, starch, etc. and coffee have increased, while the demand for the products by SADC has declined. However, given the rapid economic growth projection and the possibility for a Tripartite FTA, South Africa could see more than average growth in the SADC's demand for these products in the near future, provided it can raise competitiveness. Moreover, the country witnessed limited export opportunities with respect to explosives, furniture, beverages, tanning, rubber, tools, plastics and footwear.

South Africa Trade with ECOWAS

South Africa witnessed rising export opportunities in eight manufactured products, soaps, lubricant etc., plastics, photographic or cinematographic goods, albuminoids, machinery, headgear, rubber and tools (table 5.2). ECOWAS's demand for these products grew faster and South Africa managed to capture a portion of the increasing demand. This provides an opportunity to expand exports further.

Table 5.2: Export opportunities for SA's manufactured products to ECOWAS (%)

Sector	Growth in ECOWAS's demand		SA's market share		RCA 2013	Export opportunities
	2011-2013	2013	2011	2013		
Explosives	13.0	14.4	8.7	6.9	Decreasing	Lost opportunities
Furniture	29.7	53.8	3.0	2.0	Decreasing	Lost opportunities
Soaps, lubricants, waxes, candles, modelling pastes	20.9	48.6	3.3	3.5	Increasing	Rising opportunities
Paper and paperboard, articles of pulp, paper and board	0.9	2.0	4.5	3.9	Decreasing	Lost opportunities
Plastics	8.9	22.1	3.8	4.4	Increasing	Rising opportunities
Milling products, malt, starches, inulin, wheat gluten	17.3	0.3	0.7	0.8	Increasing	Falling opportunities
Photographic or cinematographic goods	18.5	93.9	1.8	6.2	Increasing	Rising opportunities
Tanning, dyeing extracts, tannins, derivs, pigments etc	0.0	3.5	3.8	3.3	Increasing	Lost opportunities
Albuminoids, modified starches, glues, enzymes	-7.3	9.0	1.7	2.9	Increasing	Rising opportunities
Machinery, nuclear reactors, boilers, etc	-0.9	3.6	2.0	2.2	Increasing	Rising opportunities
Headgear and parts thereof	13.5	55.8	2.4	2.8	Decreasing	Rising opportunities
Rubber	-1.5	18.5	0.8	1.5	Decreasing	Rising opportunities
Tools, implements, cutlery, etc of base metal	-6.7	3.2	1.8	1.9	Decreasing	Rising opportunities

Evidence also shows that South Africa lost export opportunities to ECOWAS in explosives, furniture, paper and paperboards and tanning, dyeing etc. The country did not manage to capture a portion of the increasing ECOWAS's demand in these products in 2013. Yet there was an opportunity to expand exports further.

However, while the market share for milling products have increased, the demand for the products by ECOWAS has declined, but given the rapid economic growth projection for the region, South Africa could still witness more than average growth in ECOWAS's demand for

this product in the near future. It is interesting to note that South Africa did not witness any limited export opportunities to ECOWAS.

South Africa Trade with COMESA

Similar to SADC, South Africa lost export opportunities to COMESA in three products, salt, sulphur, etc., printed books and machinery (table 5.3). The country did not manage to capture a portion of the increasing COMESA's demand in these products in 2013. Yet there was an opportunity to expand exports further.

Table 5.3: Export opportunities for SA's manufactured products to COMESA (%)

Sector	Growth in COMESA's demand		SA's market share		RCA 2013	Export opportunities
	2011-2013	2013	2011	2013		
Explosives	30.0	32.8	44.4	35.3	Decreasing	Limited opportunities
Furniture	22.0	10.6	13.2	6.1	Decreasing	Limited opportunities
Fertilizers	56.1	15.5	4.7	11.4	Decreasing	Falling opportunities
Soaps, lubricants, waxes, candles, modelling pastes	24.5	6.3	21.0	18.4	Increasing	Limited opportunities
Salt, sulphur etc.	8.2	13.3	12.7	8.4	Increasing	Lost opportunities
Paper and paperboard, articles of pulp, paper and board	12.0	2.5	10.8	8.6	Increasing	Limited opportunities
Cereal, flour, starch, milk preparations and products	24.5	9.2	11.5	8.7	Increasing	Limited opportunities
Miscellaneous chemicals	11.6	6.2	12.0	11.6	Decreasing	Limited opportunities
Beverages, spirits and vinegar	33.0	12.9	29.2	18.8	Increasing	Limited opportunities
Rubber	27.3	5.6	10.2	7.8	Decreasing	Limited opportunities
Ceramic	34.9	20.5	8.7	4.0	Increasing	Limited opportunities
Printed books	3.7	8.6	10.7	7.0	Decreasing	Lost opportunities
Tools, implements, cutlery, etc of base metal	18.0	12.8	13.4	9.5	Increasing	Limited opportunities
Tanning, dyeing extracts, tannins, dyes, pigments etc	16.7	3.4	10.0	7.4	Decreasing	Limited opportunities
Plastics	23.7	15.0	7.6	7.0	Increasing	Limited opportunities
Albuminoids, modified starches, glues, enzymes	22.0	10.1	8.7	9.3	Increasing	Falling opportunities
Dairy products, eggs, honey, edible animal products	21.2	2.6	4.7	4.2	Increasing	Limited opportunities
Inorganic chemicals	34.0	31.3	13.1	5.9	Decreasing	Limited opportunities
Residues, wastes of food industry, animal fodder	56.0	15.3	5.3	4.6	Increasing	Limited opportunities
Machinery, nuclear reactors, boilers, etc	8.4	13.4	9.7	8.5	Increasing	Lost opportunities
Headgear and parts thereof	12.1	9.6	11.8	12.5	Increasing	Falling opportunities
Vehicles	11.4	3.7	7.8	6.9	Increasing	Limited opportunities
Glass and glassware	15.7	7.3	8.6	5.8	Increasing	Limited opportunities

However, while the market share for fertilizers, albuminoids and headgear have increased, the demand for the products by COMESA has declined (reflecting falling opportunities in these products), but given the rapid economic growth projection and potential Tripartite FTA, South Africa could see more than average growth in the COMESA's demand for these products in the near future. Moreover, the country witnessed a large number of limited export opportunities to COMESA.

South Africa Trade with EAC

South Africa witnessed rising export opportunities in three manufactured products: miscellaneous chemicals, inorganic chemicals and cocoa (table 5.4). ECA's demand for these products grew faster and South Africa managed to capture a portion of the increasing demand. This provides an opportunity to expand exports further.

Table 5.4: Export opportunities for SA's manufactured products to EAC (%)

Sector	Growth in EAC's demand		SA's market share		RCA 2013	Eport opportunities
	2011-2013	2013	2011	2013		
Explosives	9.0	6.6	15.6	19.0	Increasing	Falling opportunities
Furniture	16.9	2.1	4.9	3.6	Decreasing	Limited opportunities
Beverages, spirits and vinegar	9.3	1.2	19.7	19.2	Increasing	Limited opportunities
Miscellaneous chemicals	5.1	10.3	11.8	13.8	Decreasing	Rising opportunities
Tanning, dyeing extracts, tannins, derivs,pigments et	8.1	10.8	13.3	8.9	Decreasing	Lost opportunities
Albuminoids, modified starches, glues, enzymes	12.0	11.6	16.1	12.5	Increasing	Limited opportunities
Printed books	-8.5	16.0	8.5	3.7	Decreasing	Lost opportunities
Vehicles	6.8	10.6	5.5	4.5	Increasing	Lost opportunities
Inorganic chemicals	3.5	7.6	3.8	5.1	Increasing	Rising opportunities
Cocoa	0.5	19.8	11.6	20.6	Increasing	Rising opportunities
Tools, implements, cutlery, etc of base metal	17.8	6.4	8.9	3.4	Decreasing	Limited opportunities
Plastics	12.7	21.4	4.8	3.1	Decreasing	Lost opportunities

Evidence also shows that South Africa lost export opportunities to ECA in tanning, dyeing etc., vehicles, printed books and plastics (although it is losing competitiveness in the last two products). The country did not manage to capture a portion of the increasing ECA's demand in these products in 2013. Yet there was an opportunity to expand exports further.

However, while the market share for explosives has increased, the demand for the products by ECA has declined, reflecting falling opportunities in this product. Moreover, the country witnessed limited export opportunities to ECA in furniture, beverages (mainly wine), albuminoids and tools.

In summary, South Africa's trade with the rest of Africa has increased significantly than with the rest of the world. Moreover, most of South Africa's trade with Africa is in manufacturing, affording a sustainable market for value-added goods and opportunity to accelerate the pace of transformation. In order to maximise opportunities inherent in Africa, South Africa needs to boost exports in those products that are in demand in which it has gained more comparative advantage. In addition, the country can also raise its competitiveness, particularly in those manufactured products which are in demand but in which it is losing or has lost comparative advantage.

6. Conclusion

This paper examines the role of trade in driving structural transformation for sustainable economic growth and employment in the context of South Africa's trade performance, as well as the composition and performance of its exports. South Africa's trade trajectory and structural change is dependent on a number of factors, which include trade openness

(integration), foreign competition, research and development (innovation) and productivity amongst others. The pace of trade openness if not complimented by other policies and strategies, will not achieve the desired results as clearly highlighted by the contrasting experiences of Latin America and East Asia. South Africa therefore has lessons to learn from East Asia as it had opened up at a much faster pace compared to its major trading partners. The envisaged benefits of trade openness have not been fully exploited. The industrial policy followed by some of the countries in East Asia provided further impetus to structural change. The support from the respective governments took various forms which included providing them preferential treatment including tax deductions and exemptions for selected industries and helped them become competitive by partnering with foreign multinational corporations. Export Processing Zones (EPZs) were also put in place to attract FDI not only for export purposes but for technology transfers.

In the twenty years since the end of apartheid, the South African government has taken significant steps to liberalise trade in order to address unemployment, poverty and inequality. However, South Africa's widened exposure to the rest of the world has not in itself induced the necessary structural changes in the economy to significantly alter the export basket beyond the range of products that reflect South Africa's static comparative advantage. Despite this observation, South Africa has been driving the Africa's intra-trade agenda increasing its exports to rest of Africa from 15 per cent in 2005 to 29 per cent in 2013.

Similarly, South Africa's inclusion into the BRIC countries has created a platform for enhanced trade through cooperation both on the political and economic front. South

Africa's exports to BRICS have indeed increased but not at an envisaged level. This is primarily because South Africa's trade with most of these countries is characterised by export of raw materials and imports of manufactured goods. South Africa's significant natural resources are being extracted and exported in their raw form and not as processed or finished products. This is a serious missed opportunity for more robust, diversified and sustainable development.

South Africa being the most advanced economy in Africa has better infrastructure, technology and to some extent skills to become the manufacturing hub for the rest of the continent. South Africa's export share in Africa has been improving over the years. This is reflected in the

number of products that South Africa has comparative advantage. The prospects of structural change are more probable in Africa than any other region though South Africa has been experiencing declining competitiveness in most of the manufactured products. South Africa is facing competition from China, EU, India and USA in Africa especially for manufactured products and this possess a threat on the rate of trade reforms. To maximise opportunities inherent in Africa, South Africa needs to boost exports in those products that are in demand in which it has gained more comparative advantage.

Overall, South Africa needs to raise its competitiveness, particularly in those manufactured products which are in high demand from trading partners but in which it is losing or has lost comparative advantage. This will be particularly important for the country to be able to capture a significant share in the projected trade outlook. Failure to improve competitiveness will be detrimental as other countries will capture some of the South Africa's market share.

From an industrial policy perspective, South Africa needs to focus on sectors/industries in which the country has comparative advantage and put in support mechanisms to accelerate trade as highlighted in the East-Asian experience. Persistent focus or support on sectors where the country does not have comparative advantage can be counter-productive as it induces inefficiencies despite other valid socio-economic and political considerations.

Despite some of the observations highlighted, trade policy still remains an important part of South Africa's growth trajectory and requires support from all stakeholders to be able to contribute meaningfully to the reduction of poverty, inequality and poverty.

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