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Regional Value Chains in Southern Africa: Exploring Opportunities for Linkages and Upgrading

Paper submitted by

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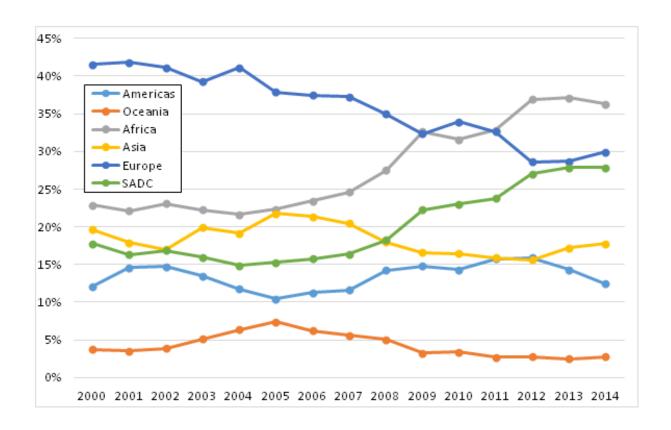


Southern Africa

- High GDP growth rates across the continent
- Demand-pull of urbanization, extractive industries, agriculture
- 2014 57% of Africa's exports consisted of unprocessed commodities (UNCTAD, 2016)
- Premature de-industrialization & lack of structural transformation diversification
- Aggregate data miss important country & sectoral dynamics
 - Market structure and nature inter-firm linkages
 - Technology and learning what activities and capabilities

Important research agenda:

- CCRED (South Africa); IAPRI, ZIPAR in Zambia; ZEPARU in Zimbabwe; IESE in Mozambique; REPOA in Tanzania funded by SA DTI, UNU WIDER
- UNCTAD



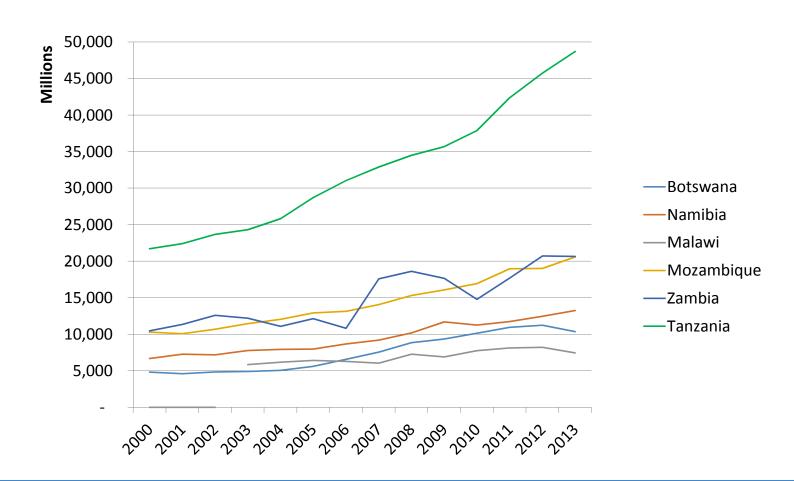
Shares of South Africa's diversified manufacturing exports (excluding basic metals and chemicals) by destination.

A credit to SADC

- Success in reducing tariff barriers as part of the FTA and concomitant growth in trade in goods
- Expansion in services trade
- Expansion in FDI, notably in services
- Despite these successes, there are clear concerns

- Limited appetite for continued <u>across-the-board</u> steps towards greater integration
 - SADC customs union appears to be delayed indefinitely
- Frequent incoherence between national policies and the regional integration agenda
 - Growing importance of NTBs
- South Africa experiencing more success in exporting to the region than vice versa, particularly with respect to non-minerals
- Regional trade does not necessarily coincide with RVCs integrated production networks?
- Two way growth dynamics not yet in place

Household final consumption expenditure PPP (constant 2011, US\$)



- Strong growth in the number and spread of supermarkets over the past two decades.
- Shoprite and Pick n Pay alone account for 366 stores across 16 African countries, all but three of which are SADC countries.
- Expansion of clientele to lower income consumers and smaller towns serving rural zones.
- Dominated by South African companies that benefit from firstmover advantages in most countries
- Conduits for South African products and deep sea imports to consumers in the region.

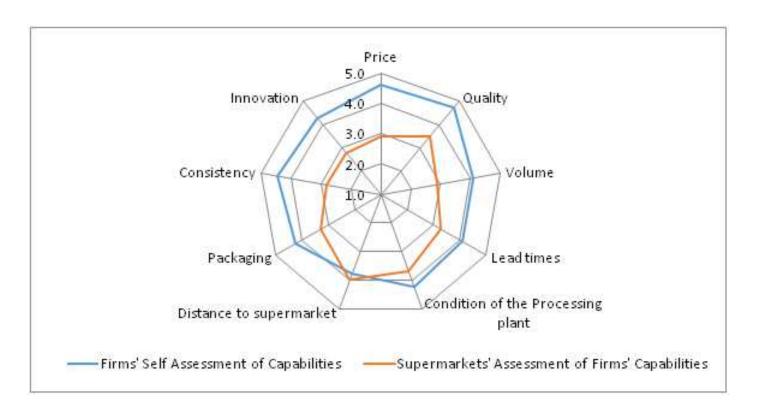
Challenges and opportunities

Local suppliers are challenged by:

- Competition from imports
- Growing dominance of supermarkets in retail
- Difficulties in meeting standards to supply these supermarkets
- Potential market power of supermarkets catering to multinational brands
- Supermarkets underinvesting in supplier development

Local suppliers have the opportunity to:

- Serve national markets easily and efficiently
- Break into regional markets using the supermarket network



Source: Ziba and Phiri (2016)

Policy measures

Supplier development initiatives

- targets for regional sourcing
- onus for supplier development on supermarkets or their association

A regional code of conduct for supermarkets

Monitor supermarkets as key routes to market

(das Nair and Chisoro, 2016)

Mining-related capital equipment

Historical experience of developed and developing countries show that resources can support industrial development and knowledge intensification

RVC for mining capital equipment is important for multiple reasons:

- Trade and FDI flows in the industry are significant across the region
- Existing Regional System of Innovation around mining with hub South Africa
- Strong capabilities in South Africa but uneven developments across the region
- Engineering manufacturing and services capabilities are critical for industrialisation
- Capabilities conducive to lateral migration and inputs into other sectors
- Countries are looking at local content policies to leverage on their extractive industries

Continental and regional strategies

Africa Mining Vision adopted by Heads of State in February 2009

Goal: "Transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socioeconomic development"

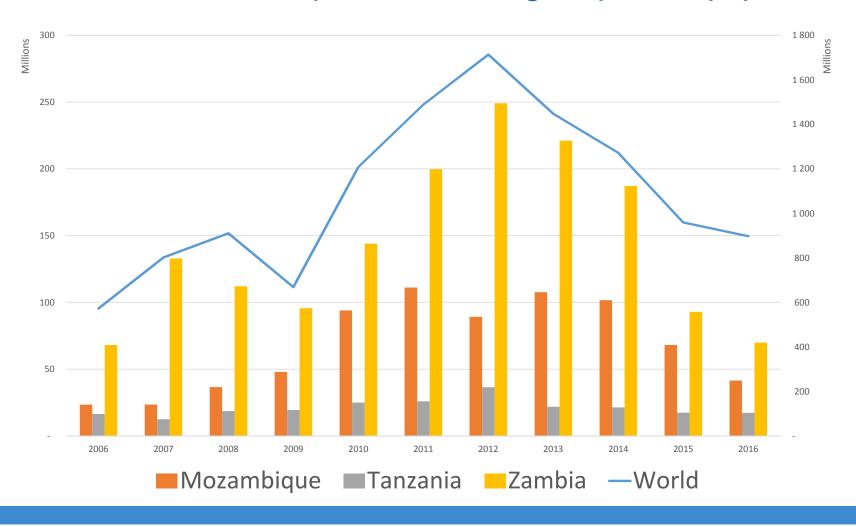
2011 Action Plan to Implement the AMV → Programme cluster 8 Linkages and diversification

Strategy for SADC focused on linkages development (Jourdan 2016)

SADC major market for mining and mineral processing inputs sector \rightarrow imports of ~\$4bn/y (double the EU mining inputs market, SADC >70% of Africa)

Backward mineral linkages → multipliers, lateral migration (into other sectors)

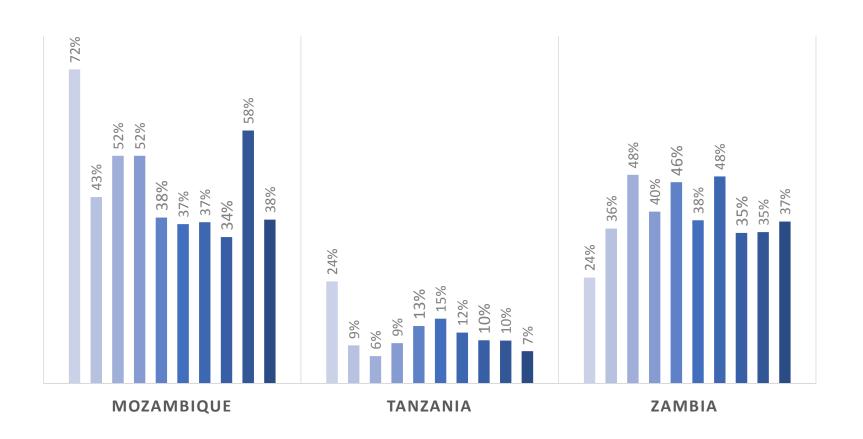
South Africa's Exports of Mining Capital Equipment



South Africa's largest export markets (>100 M US\$)

Country	Cumulative exports 2012-2016
<mark>Zambia </mark>	820 608 204
Botswana	665 085 632
DRC	585 426 875
Namibia	475 700 575
Zimbabwe	461 379 723
Mozambique	408 568 987
USA	313 497 858
Australia	245 227 818
Angola	143 827 472
Ghana	123 946 274
Tanzania Tanzania	115 069 933
Lesotho	112 920 597
UAE	100 057 821

South Africa's market share in the region: Changes in 2006-2015



Players in regional markets: Example of Mineral processing capital equipment

NAOZANADIOLIE						
IV	IOZAMBIQU Market	Import Growth 2011-2015				
	share	(%, p.a.)				
World	100	2				
South						
Africa	57.6	3				
Portugal	9.9	19				
China	8.8	44				
Austria	7.4	23				
Turkey	3.3	63				
India	2	-43				
Italy	2	2				
Spain	1.7	75				
UK	1.7	107				
France	1.1	61				

TANZANIA						
	Market share	Import Growth 2011-2015 (%, p.a.)				
World	100	2				
China	50.2	31				
India	15.9	21				
South						
Africa	9.5	-24				
Indonesia	5.7	-3				
France	3.4	14				
USA	2	-16				
Italy	1.7	-21				
Turkey	1.7	0				
UK	1.3	-2				
Germany	1.3	-10				

7AMRIA							
	ZAMBIA Import Growth Market 2011-2015 share (%, p.a.)						
World	1						
South Africa	36.8	-14					
China	20.5						
UK	4.8	14					
Australia	4.5	27					
Canada	4.5	73					
USA	3.6	42					
Turkey	3.6	170					
India	3.3	-13					
Finland	2.5	-2					
Germany	1.4	31					

Changing OEMs strategies

Industry concentration

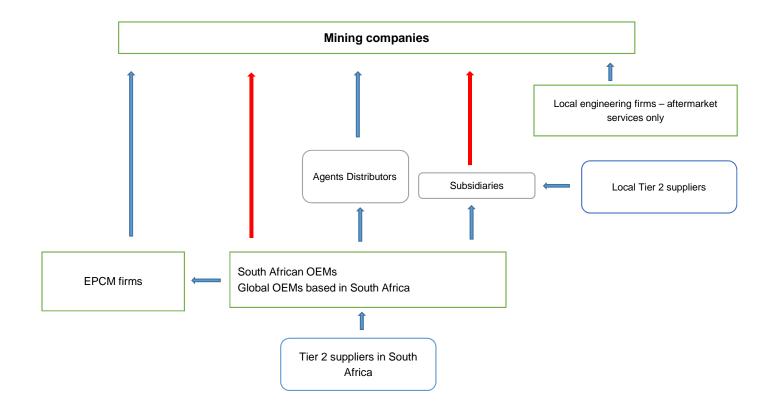
Sandvik, Atlas Copco, and Caterpillar dominate the market for Load Haul Dumps (LHDs), trucks, drills and bolters

Manufacturing outsourcing, R&D internationalisation

Servicification of manufacturing

Next generation mining

RVC structure



South Africa as regional hub

- South African OEMs vs. Global OEMs
- South African OEMs' delayed internationalisation compared to Global OEMs
 - → access to aftermarket services revenue streams
- SA-based OEMs increasingly projected towards the region, especially mineral processing OEMs (50 - 95% of their sales)
- South African OEMs entry into the region:
 - Trial and error
 - Progression from direct exports, distributorships and JVs, subsidiaries
 - Losing competitiveness in aftermarket services

Mozambique, Tanzania and Zambia

Machinery and metal fabrication sector

- Declining output performance and shallowing of technological capabilities
- Concentration in few, large firms, and a multitude of small scale, informal businesses

Challenges

- lack of management and technical skills
- poor access to credit, technology, and business development services
- weak national quality assurance systems
- uncompetitive upstream industries
- costly and unreliable infrastructure
- Mozambique and Tanzania burdensome regulatory and administrative environments

Policy frameworks

Tanzania and Zambia

- revision of mining policy frameworks in the late 2000s
- encourage the mining companies to increase local sourcing
- Not mandatory, no specific targets no monitoring mechanisms
- very limited impact on local machinery and metal fabrication value addition
- Zambian Mining Local Content Initiative (ZMLCI)

Mozambique

- No local content
- MOZAL linkage programme → Instituto para a Promoção das Pequenas e Médias Empresas (IPEME)

South Africa

• 2010 Mining Charter → Focused on Broad-based Black Economic Empowerment

Contd.

Internal policy inconsistency

• Duty-free imports from mining companies vs. domestic suppliers

Focus on ownership rather than value addition

Experience with supplier development programmes vary

Industry bodies well-organised

Regional System of Innovation centred around South Africa

- Flows of students, researchers and teachers
- One way flow

Opportunities

Large demand

- world market for mining capital equipment US\$100 billion in 2016, US\$107.3 billion by end 2017
- 2006-2015 cumulative imports → Mozambique US\$ 1.8 billion, Tanzania US\$ 2.3 billion, Zambia US\$ 4.4 billion

Aftermarket services

See table

Nearsourcing

Govt interest and SADC Industrialisation Strategy and Roadmap

Size of aftermarket services

Processing equipment	Initial USDM	Total Stay In Business USDM	Ratio Stay In Business:Initial
Grinding mill, rod & ball	5.5	197.6	35 :1
Cone crushers	4.0	65.0	16 :1
Mobile crushing plants	1.2	17.7	15 :1
Gyratory crushers	13.0	170.0	13 :1
Underground loaders (LHDs)	1.9	27.0	14 :1
Shovels, hydraulic	15.9	179.3	11 :1
Continuous miners, u/ground	3.2	35.9	11 :1
Roof bolters	1.4	16.5	11 :1

Atlas Copco – 40% of revenues from aftermarket sales and leasing (Sweden National Board of Trade, 2012).

Source: Virgo, Armstrong and Alftan, 2013

Challenges

Vulnerable to commodity price fluctuations, macro-economic instability

High entry barriers

Uneven capabilities

Gas sector?

Policy inconsistency between countries and within countries

Deepening linkages across and within countries

Nature of regional linkages SA – Zambia

	Linkages						Local sub-contracting		
	Back up	Training	Credit	Joint product development	Joint promotion	Yes	Some	No	
Subsidiaries	100%	100%	83%	0%	83%	0%	50%	50%	
Others	33%	17%	0%	0%	17%	0%	17%	83%	

Contribution to knowledge intensification

	Training for Zambian firms					Innovation in 2	Zambia
	In-	In South	Abroad	Support	R&D	Product	Local firm
	house	Africa		to local	budget	development	involved in
				institutes			OEM/mine
							collaboration
Subsidiaries	100%	100%	50%	17%	0%	17%	17%
Others	17%	0%	0%	0%	0%	0%	0%

Linkages between local manufacturers and mega-projects

Implications of Mozal on broader industrial development are limited (Langa and Mandlate, 2015):

- · Weak linkages:
 - Scale required is too large for local firms
 - Weak supplier capabilities
 - Business environment (finance)
 - Time and risk taking involved in building technological capabilities
 - Barriers for new entrants
- Companies involved in engineering sector are positioned in low value added segments (supply of simple products, welding, maintenance)
- Questioning the sustainability of linkages:
 - Firms undertook large investment to meet buyer's requirements on quality, management and safety
 - Initial expansion in business but exposed to time-bound contracts with Mozal
 - Difficult to move back into traditional markets and limited opportunities diversification with mega-projects
- Firm level diversification does not entail investment in deeper technological capabilities but into services with low entry barriers, low risks and/or speculative/rent activities

Potential policy measures

Skills development in TVET and engineering

- Leveraging SA firms
- Aftermarket services centres, possible in partnership with regional firms

Mining R&D → Collaborative projects leveraging SA Knowledge sharing amongst policy-makers Manufacturing linkages

- Medium-term, more difficult
- Leveraging SA development finance

Possibly regional approach to local content