



NAMC

Promoting market access for South African agriculture

Economywide Effects of the **China - Africa trade liberalization:** Implications for South Africa's agriculture and food Industries



By

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Presentation Outline

Background

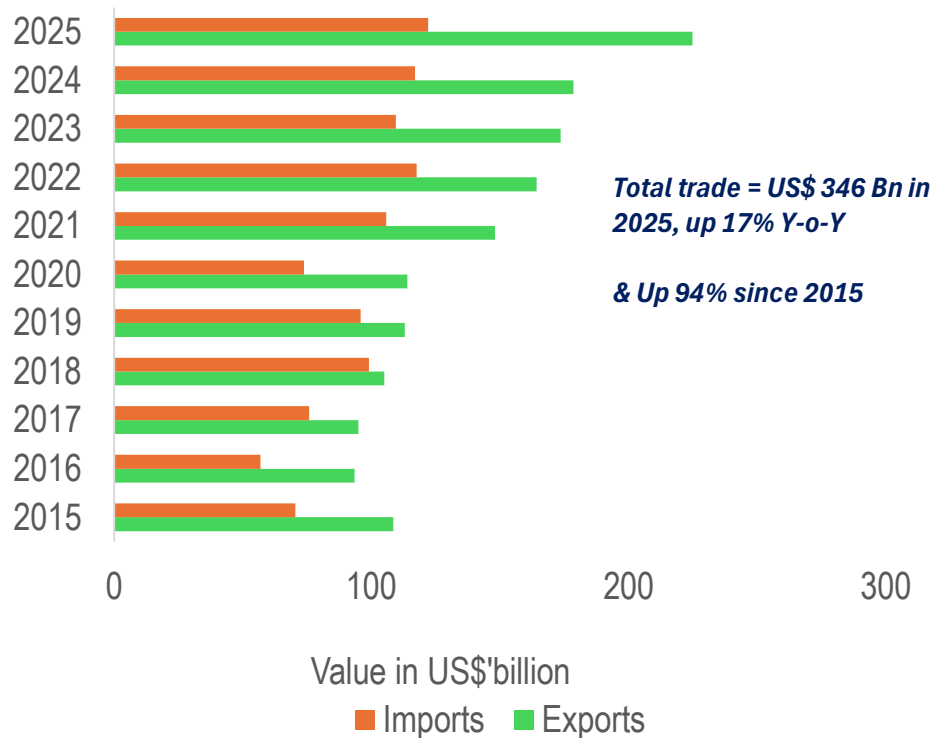
Method and data

Results and discussions

Conclusions and policy implications(s)

Background: China-Africa trade relations

- ❑ China has become Africa's largest trading partner, with total trade of approx. US\$ 346 Billion in 2025.



- ❑ Top Chinese exports to Africa:

- ✓ Electrical machinery & equipment
- ✓ Mechanical appliances & vehicles, etc.
- ✓ Accounting for over 37% of total exports

- ❑ Top Chinese imports from Africa:

- ✓ Mineral products (ores, slag & ash, copper, natural stones and precious metals)
- ✓ Accounting for over 85% of total imports

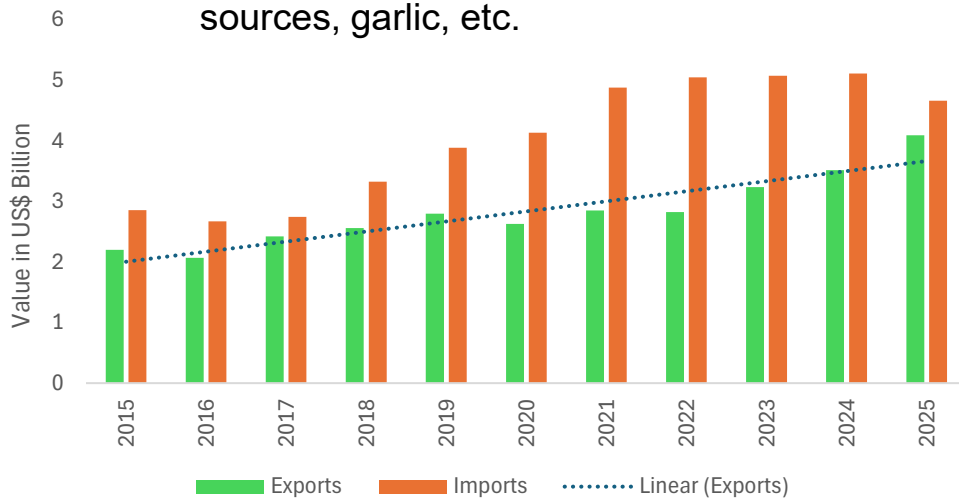
Source: ITC 2026

Background: China-Africa trade relations

❑ China- Africa agricultural trade (3%) remains relatively low, despite 73% growth since 2015

❑ Top Chinese exports to Africa:

- ✓ Green tea, rice, food preparations, tomato paste and other prepared sources, garlic, etc.



❑ Top Chinese imports from Africa:

- ✓ Sesumum seeds, tobacco, coffee, nuts, wool, macadamia, oranges, strawberries, etc.

❑ Dominant suppliers of exports to China:

- ✓ Zimbabwe, South Africa (17%)
- ✓ Ethiopia (15%), Niger, Egypt, Tanzania, etc.

Source: ITC 2026

Background: China-Africa trade relations

- ❑ Evolution of China-Africa trade Cooperation
 - Established in year 2000
 - In 2003, initial zero tariff treatment for selected LDCs in Africa
 - 2024-2025:
 - ✓ Expansion of the zero-tariff treatment; Economic Partnership for Shared Development.
 - ✓ Proposal to extend 100% tariff-line preferences to African countries with diplomatic relations with China.
 - ✓ RSA already signed in May 2026





Background & Justification

- ❑ Initiatives such as the China-Africa Economic Partnership for Shared Development are particularly relevant for the agriculture and food industries, where African countries possess comparative advantages but continue to face market access constraints (high duties & NTM's).
- ❑ Existing empirical studies on China–Africa trade largely focus on bilateral trade flows and impact on economic growth (Sandrey and Jensen, 2006; Novak, 2016; Utouh, 2024; Busse & Vogel, 2024; Liu et al., 2024).
- ❑ The economy-wide effects of China–Africa trade liberalization will therefore depend not only on bilateral tariff changes but also on how these interact with existing multilateral, regional, and continental commitments.
- ❑ How would deeper China–Africa trade liberalization affect African economies and South Africa's agriculture, food industries, and the broader economies?

Method and data: Standard GTAP

❑ Analytical Model:

- ✓ GTAP CGE model (comparative-static) to simulate trade policies and their effects on global and domestic economies.
- ✓ Standard static GTAP v7 model (Hertel & Tsigas, 1997; Corong et al., 2017)

❑ Complementary tools & data sources:

- ✓ GTAP v11 database (2017 base year) (Aguiar et al., 2023)
- ✓ 141 countries (aggregated 42 regions) & 65 commodities (aggregated into 39 commodities).
- ✓ GTAP v11 NTMs satellite database (AVEs of NTMs) (Corong et al., 2024)

❑ Pre-simulation shocks and data update

- ✓ Altax utility function (Malcom, 1998) and historical simulation (for GDP, population and labor data update)

Policy Simulation Scenarios

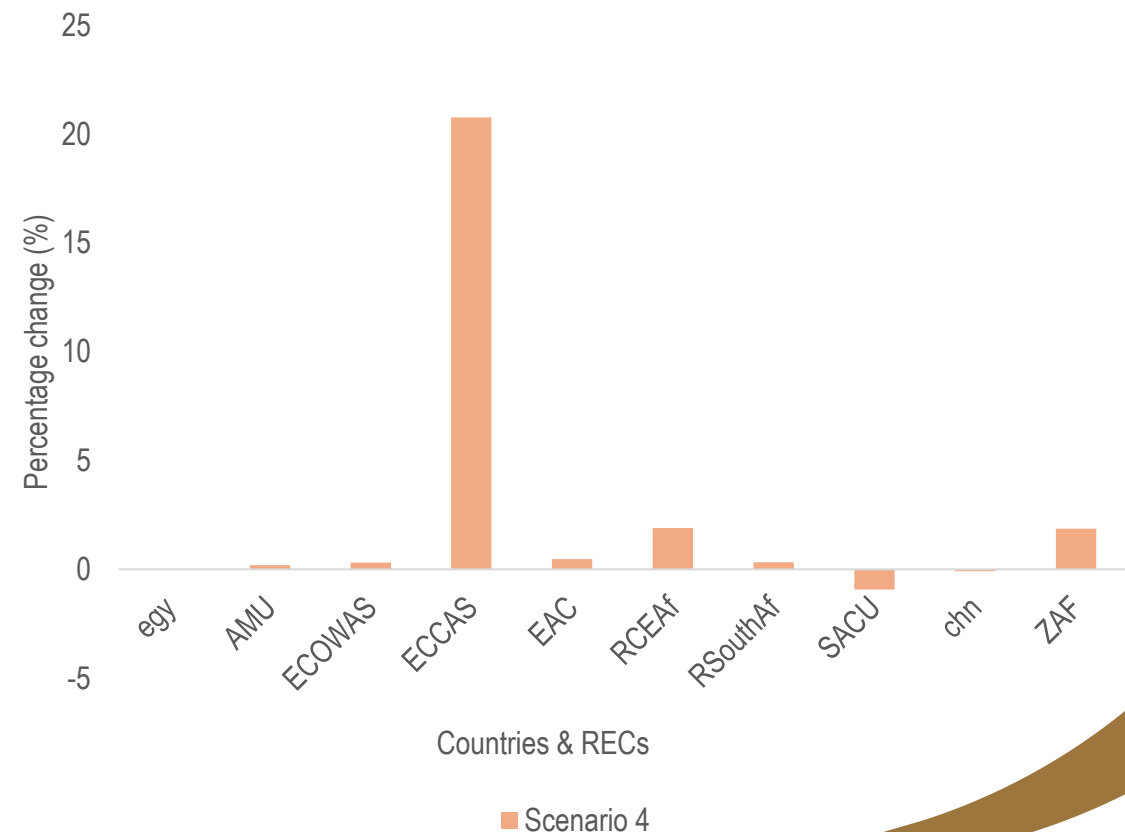
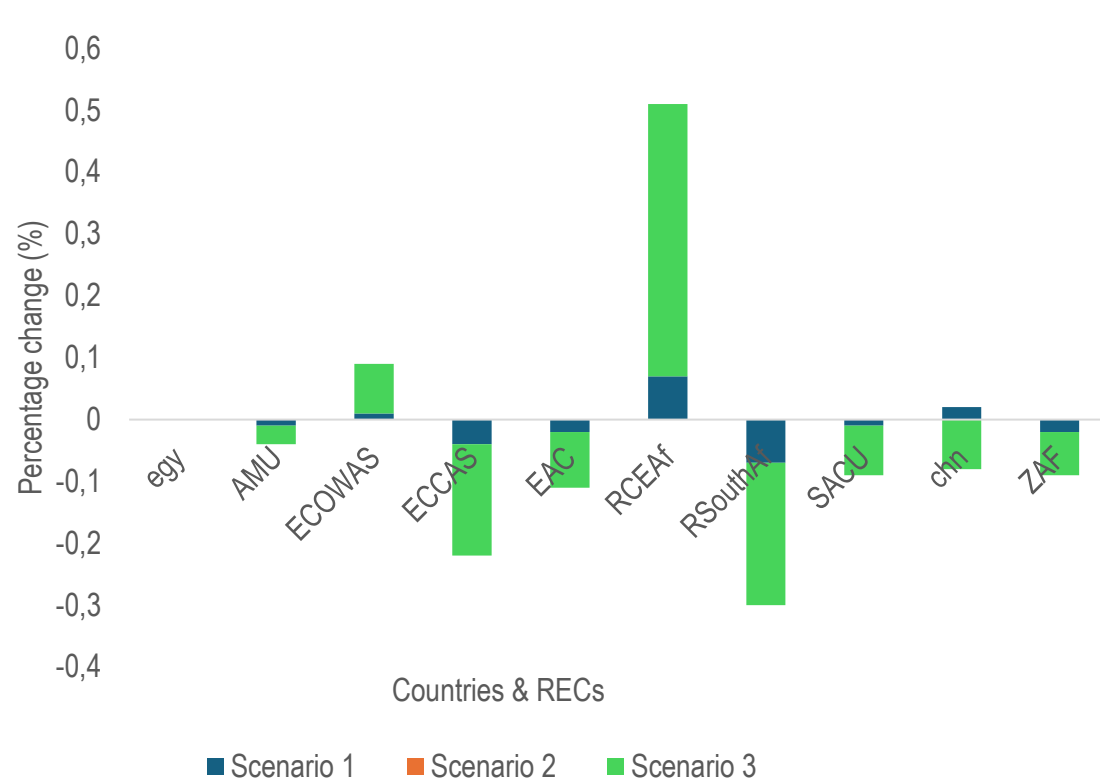
Table 1: Four sets of experiments to simulation China-Africa trade liberalization:

Simulation	Exogenous shocks
Scenario 1	China full tariff liberalization on only agriculture and food imports from African countries (excluding rest of SACU) while maintaining NTMs
Scenario 2	China reduces NTMs (50%) on only agricultural imports from African countries (excluding rest of SACU) while maintaining while maintaining bilateral tariffs.
Scenario 3	China full tariff liberalization and elimination of NTMs (50%) on only agriculture and food imports from African countries (excluding rest of SACU).
Scenario 4	China full tariff liberalization on all imports from African countries (excluding rest of SACU) while maintaining NTMs.

Source: Authors compilation

Macroeconomic results: Impact on real GDP

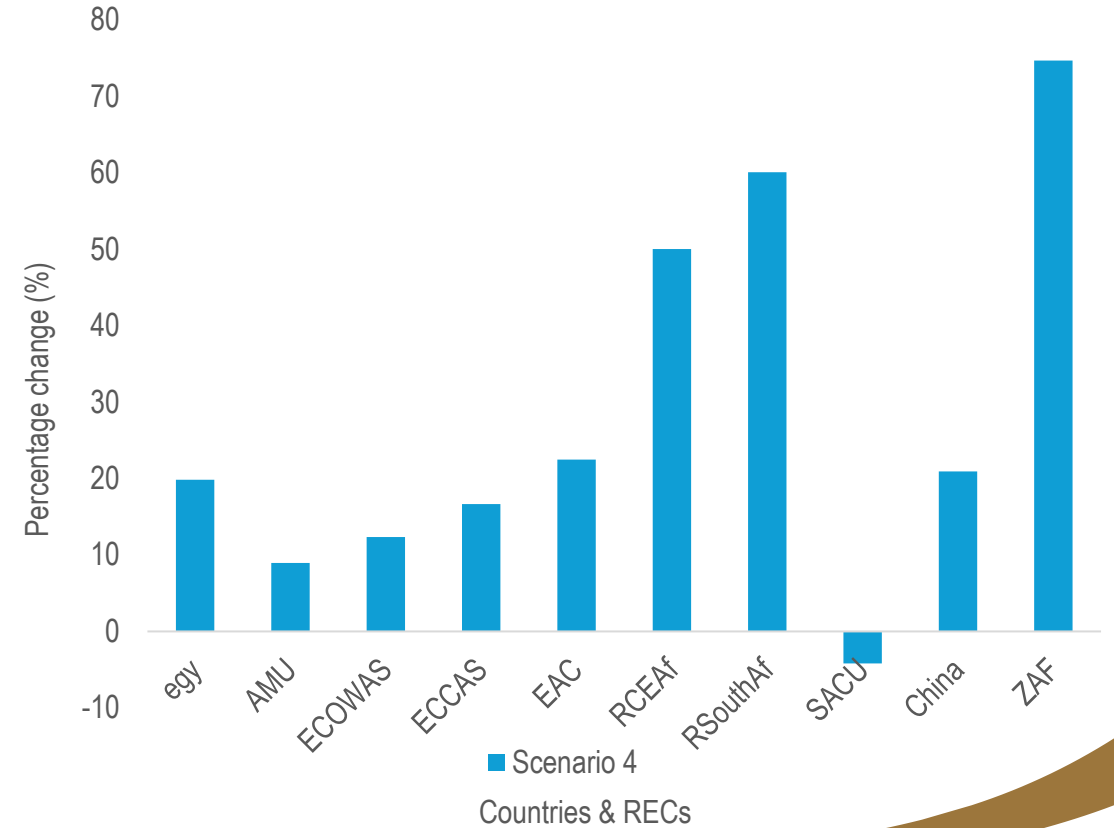
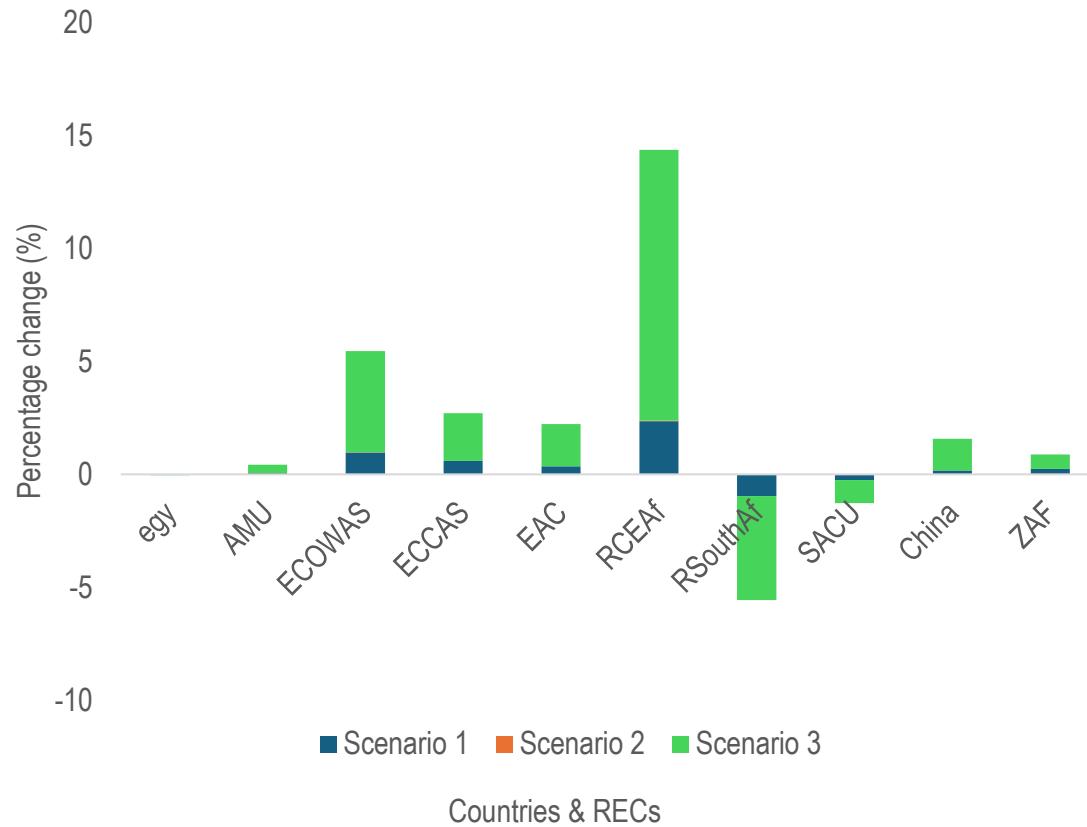
Figure 1: Impact on real GDP



Source: GTAP simulation results

Macroeconomic results: Exports by region

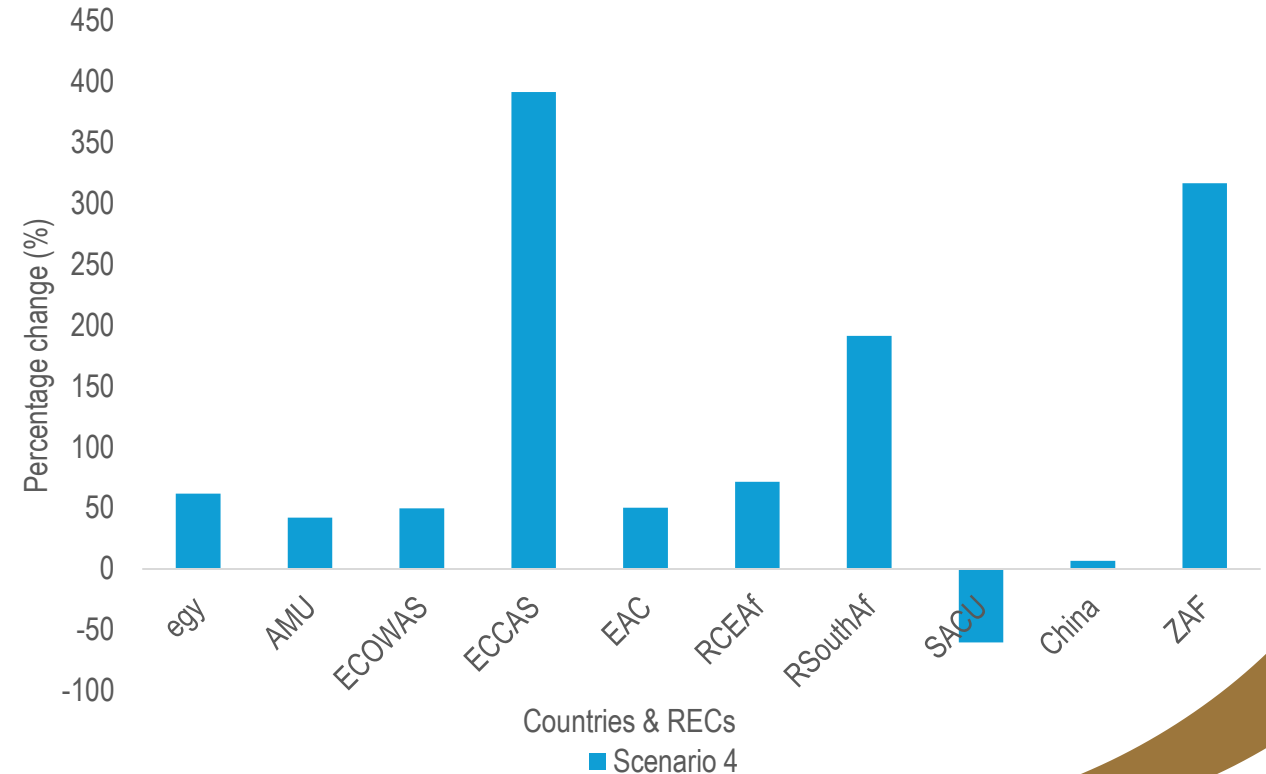
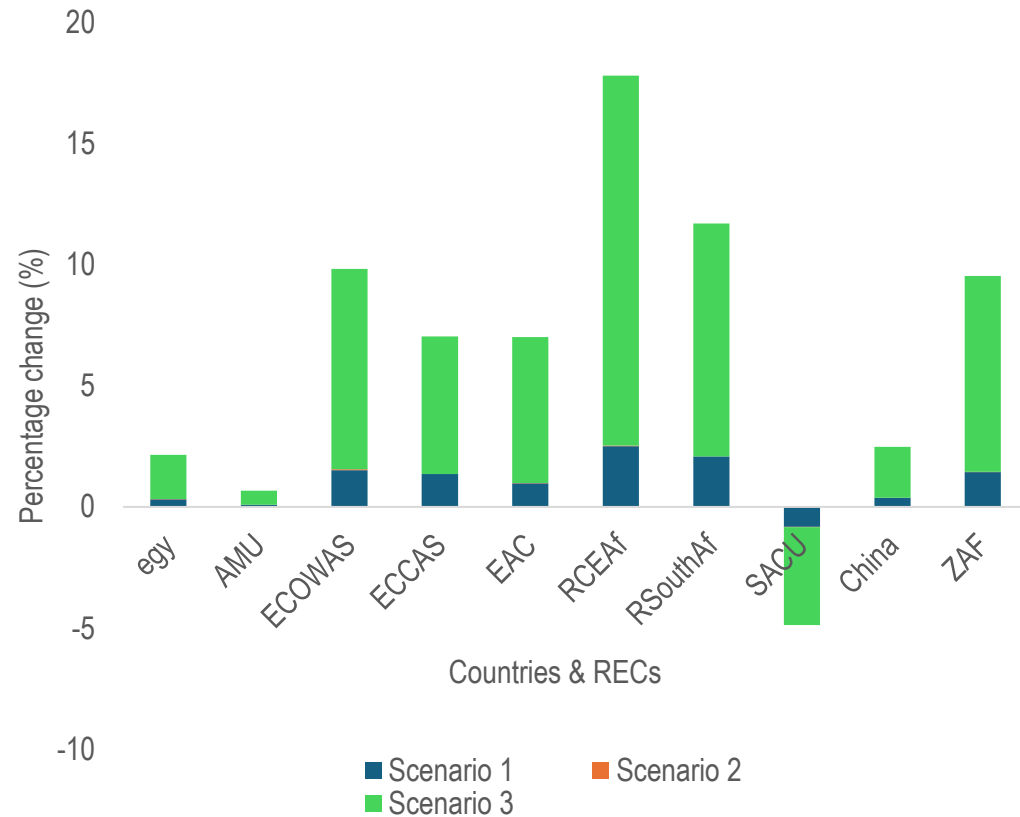
Figure 3: Total volume of exports by region



Source: GTAP simulation results

Macroeconomic results: Imports by region

Figure 2: Total volume of imports by region



Source: GTAP simulation results

Results: Output by activity in South Africa

Table 2: Change in output by activity in South Africa

Scenario 1		Scenario 2		Scenario 3		Scenario 4	
Wool	673,16	Fruits, veg& nuts	0,57	Wool	754,76	Wool	299,1
forestry products	102,64	Wool	0,48	Fruits, veg& nuts	38,56	Constr services	96,27
Fisheries	79,18	Crops nec	0,41	Food products nec	33,05	Other Manuf	53,7
Animal products nec	70,29	forestry products	0,36	sugar cane & beat	31,78	Other extraction	27,51
Sugar	37,6	Fisheries	0,28	Fisheries	22,76	Electricity prodc	11,86
Raw milk	22,51	Animal products nec	0,07	Forestry products	17,76	Trade	11,6
Fruits, veg& nuts	17,35	Constr services	0,01	Veg oils & fats	16,8	Utilities (wtr)	5,22
Bovine meat products	14,08	coal	0	Sugar	15,19	services	4,31
Food products nec	11,28	c_oil	0	Animal products nec	3,5	petroleum & coal	-6,96
Beverages & tocacco	4,87	petroleum & coal	0	Constr services	3,4	Fisheries	-19,37
Other extraction	-0,42	util	0	Beverages & tocacco	1,98	Trnsp	-22,94
Dairy products	-0,55	trd	0	trd	1,05	Oilseeds	-26,67

Results: Welfare impacts

Table 3: Welfare (EV) impacts of China-Africa trade liberalization (US\$ millions)

Region(s)	Scenario 1	Scenario 2	Scenario 3	Scenario 4
1 egypt	204,73	4,95	1 252,64	30 136,43
2 AMU	31,22	0,56	225,62	42 366,37
3 ECOWAS	1 301,81	24,34	8 033,99	55 965,12
4 ECCAS	249,02	0,07	2 056,40	234 362,36
5 EAC	319,68	3,66	2 060,39	15 153,49
6 RCEAf	1 112,84	11,00	7 081,97	32 239,02
7 RSouthAf	1 103,75	1,49	5 739,84	44 449,47
8 SACU	- 84,57	- 1,34	- 561,07	- 7 404,39
12 CHINA	1 177,69	122,80	- 21 239,00	- 580 964,53
42 ZAF	954,05	15,58	8 581,44	176 293,33

Conclusion and policy considerations

Key Findings

- ❑ China–Africa trade liberalization generates positive but uneven economywide effects across Africa and South Africa.
- ❑ ECOWAS, EAC, and the RCEAf generally record stronger export and welfare gains than some SACU and RSouthAf members
- ❑ South Africa benefits most from broad market opening ~real GDP increases by 1.87%, exports by 74.7%, imports by 316.5%, and welfare by approximately US\$176.3 billion under economywide liberalization.
- ❑ Agricultural-only liberalization produces smaller but still positive welfare gains
- ❑ South African fruits, vegetables, nuts, wool, sugar, fisheries, and several processed food products expand under agricultural liberalization scenarios
- ❑ Overall, deeper China–Africa trade liberalization generate substantial welfare and trade gains especially when accompanied by meaningful reductions in NTMs.

Policy considerations:

- ❑ Prioritize reduction of NTMs (negotiation of SPS protocols, etc.) and prioritize export readiness for competitive sectors.
- ❑ Invest in trade-enabling infrastructure (port efficiency, improved logistics, cold-chain, etc.)

Acknowledgements



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