



Potential effects of the AfCFTA on African agri-food sectors and food security

**Pan-African Network for Economic Analysis of Policies
(PANAP) General Annual Meeting**

September 16th 2022

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The JRC scientific report and web infographic of the results

- Simola, A., Boysen, O., Ferrari, E., Nechifor, V. and Boulanger, P. (2021)
- <https://datam.jrc.ec.europa.eu/datam/mashup/AFCFTA/index.html>



Introduction

- Several ex ante economic analysis on the AfCFTA
 - Mevel and Karingi (2012, 2013), Jensen and Sandrey (2015), Depetris Chauvin et al. (2016), Vanzetti et al. (2018), Saygili et al. (2018), AfDB (2019), Abrego et al. (2019), World Bank (2020), Fusacchia et al. (2022), UNECA (2022), Janssens et al. (2022)
- Our study:
 - Specific look on agri-food industries and food security
 - Based on the most up-to-date tariff and NTM data
 - Alternative hypothetical tariff cut scenarios

Method

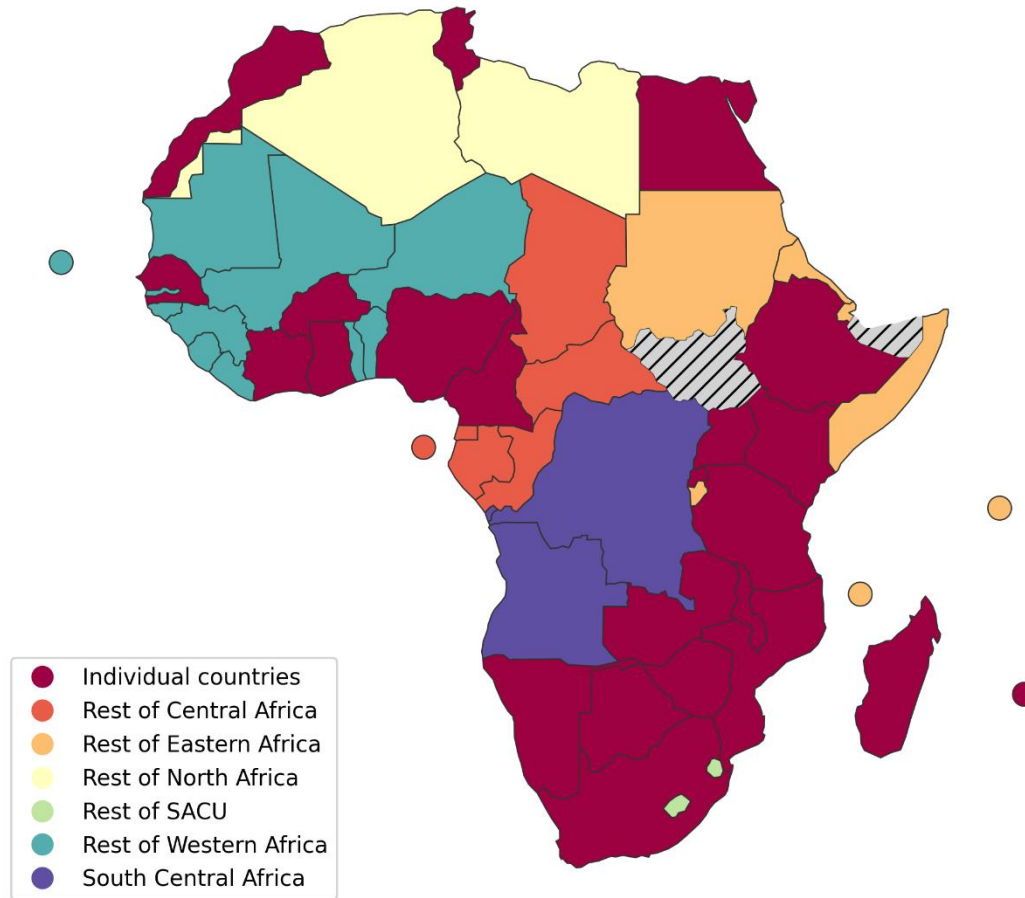
- MAGNET model
 - global CGE model (based on GTAP data and model)
 - recursive dynamics
 - highly modular
 - detailed representation of agriculture and food industries
 - several environmental indicators (e.g. GHG emissions, and land and water use)

Database aggregation

- GTAP v10 – base year 2014
- 36 regions of which 29 are in Africa
 - African regions include 6 composite regions and 23 individual countries
- RECs (post-simulation) aggregation following REC memberships (one country can belong to more than one REC)
- 40 tradable commodities

Regional aggregation

MAGNET



Scenarios

Implementation of AfCFTA 2020-2035

Tariff cuts (4 options)

- Maximize tariff revenue
- Maximize tariff revenue, after liberalizing agri-food sectors
- Maximize tariff revenue, after promoting industrialization
- Maximize tariff revenue, after promoting competitive sectors

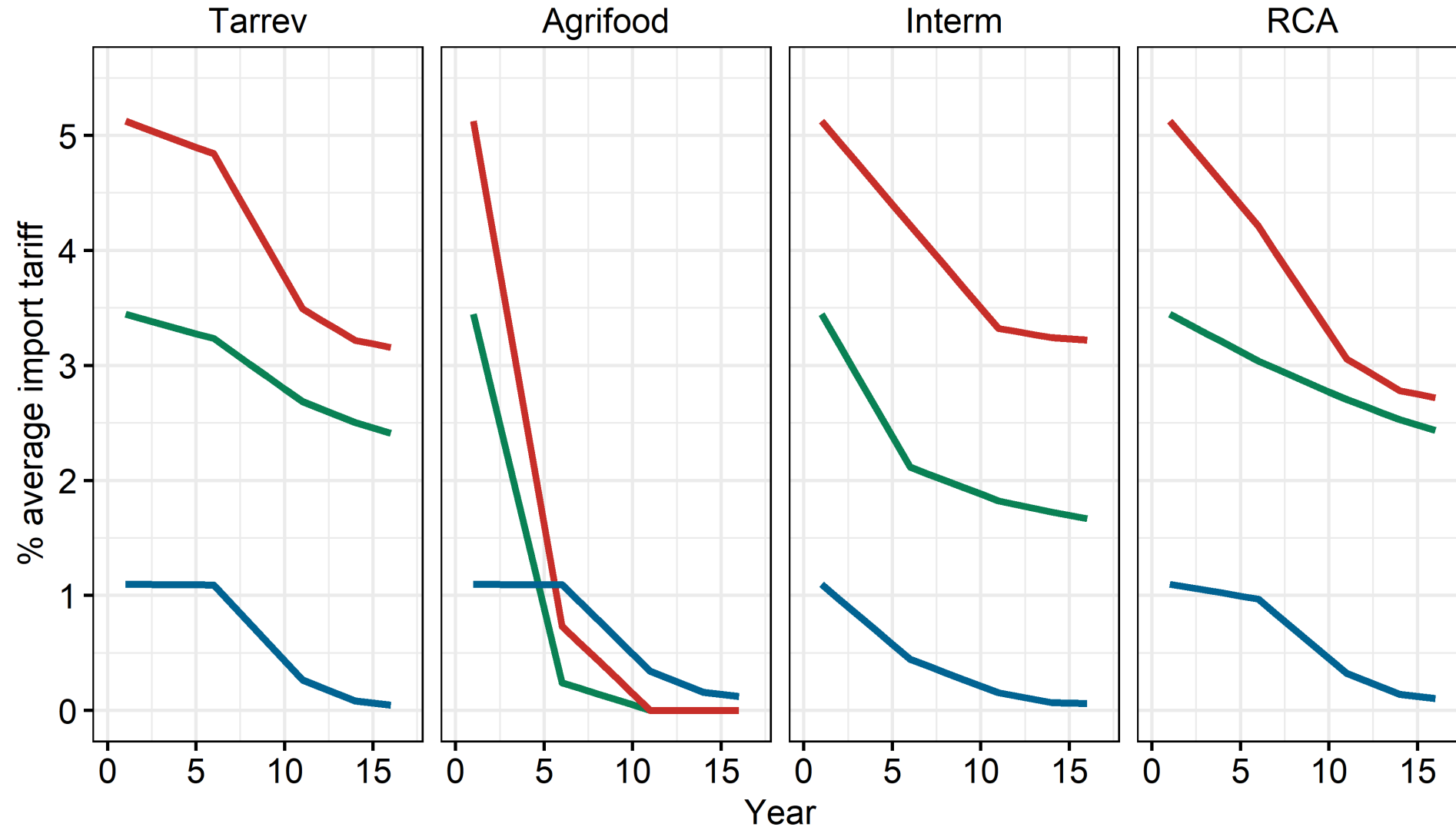
Tarrev
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NTM reduction to 50%

- In addition a 25% reduction for trade with third countries

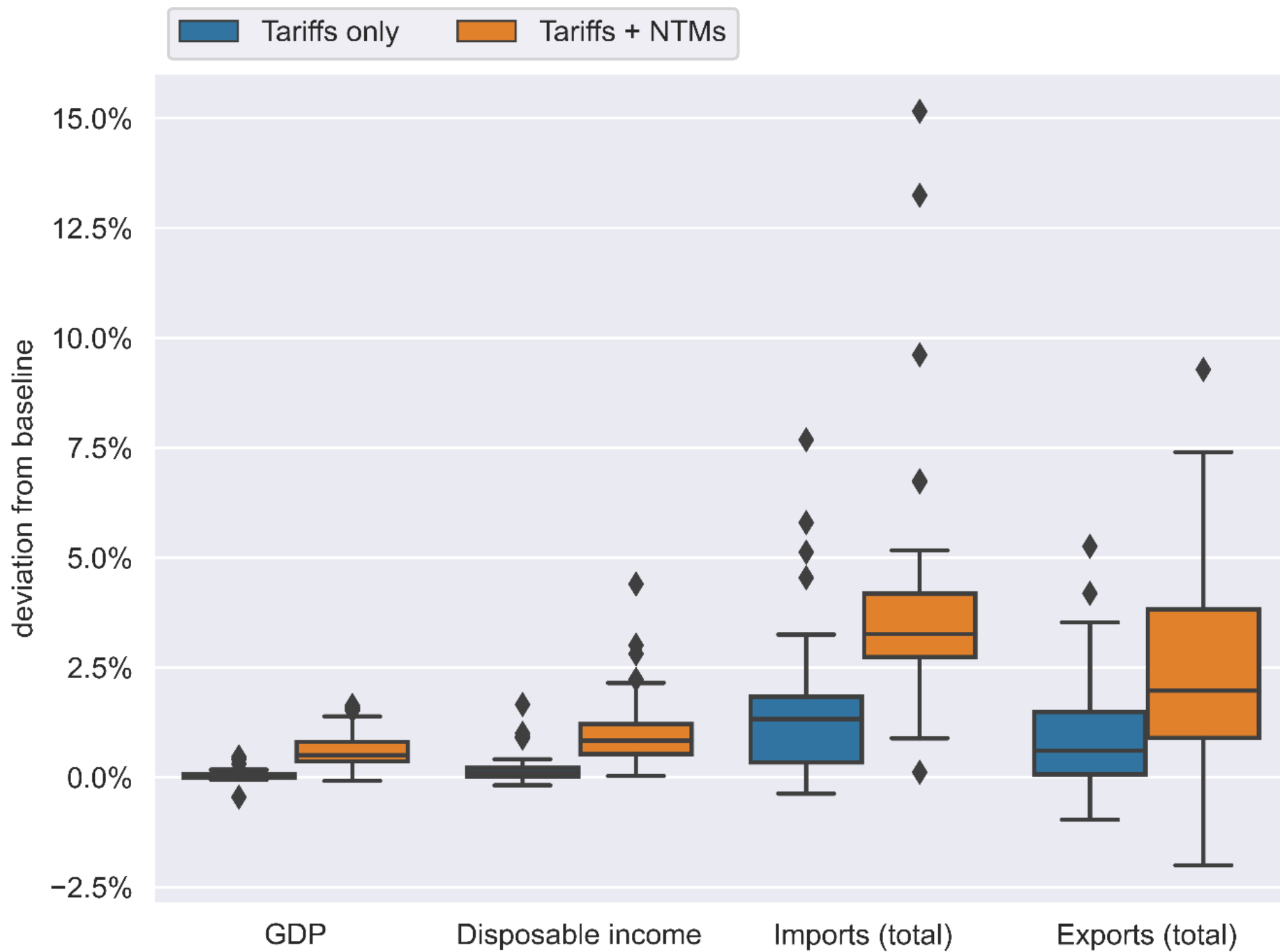
Tariff rates by the scenarios

— Agri. — Food — Other

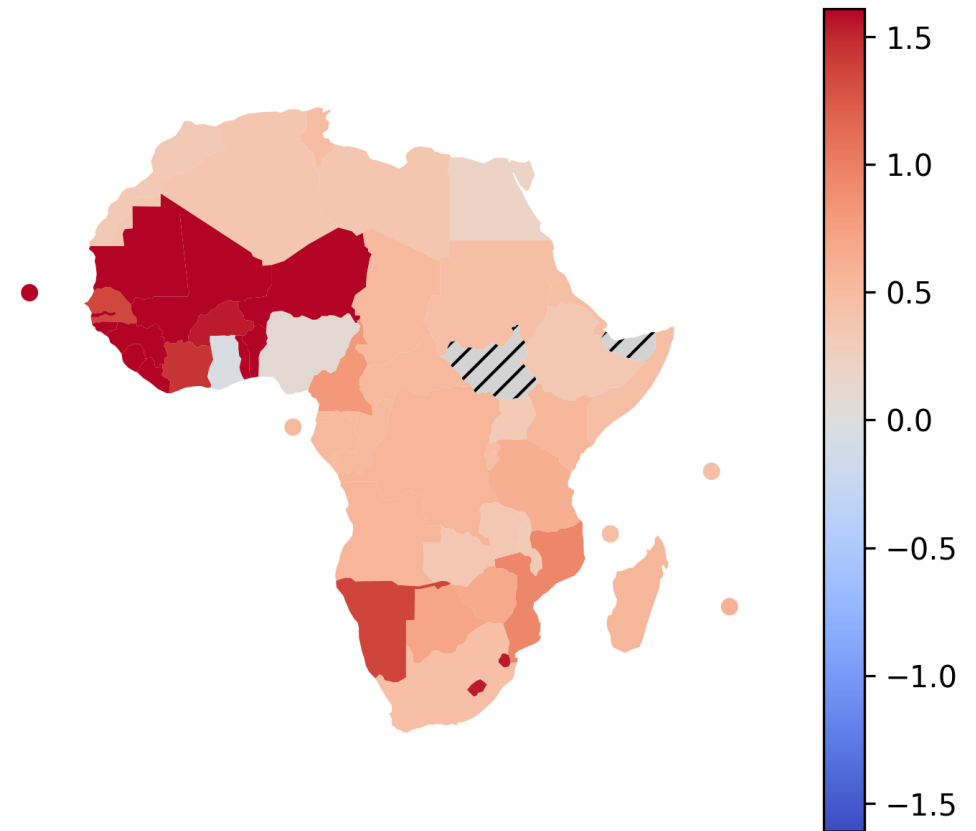
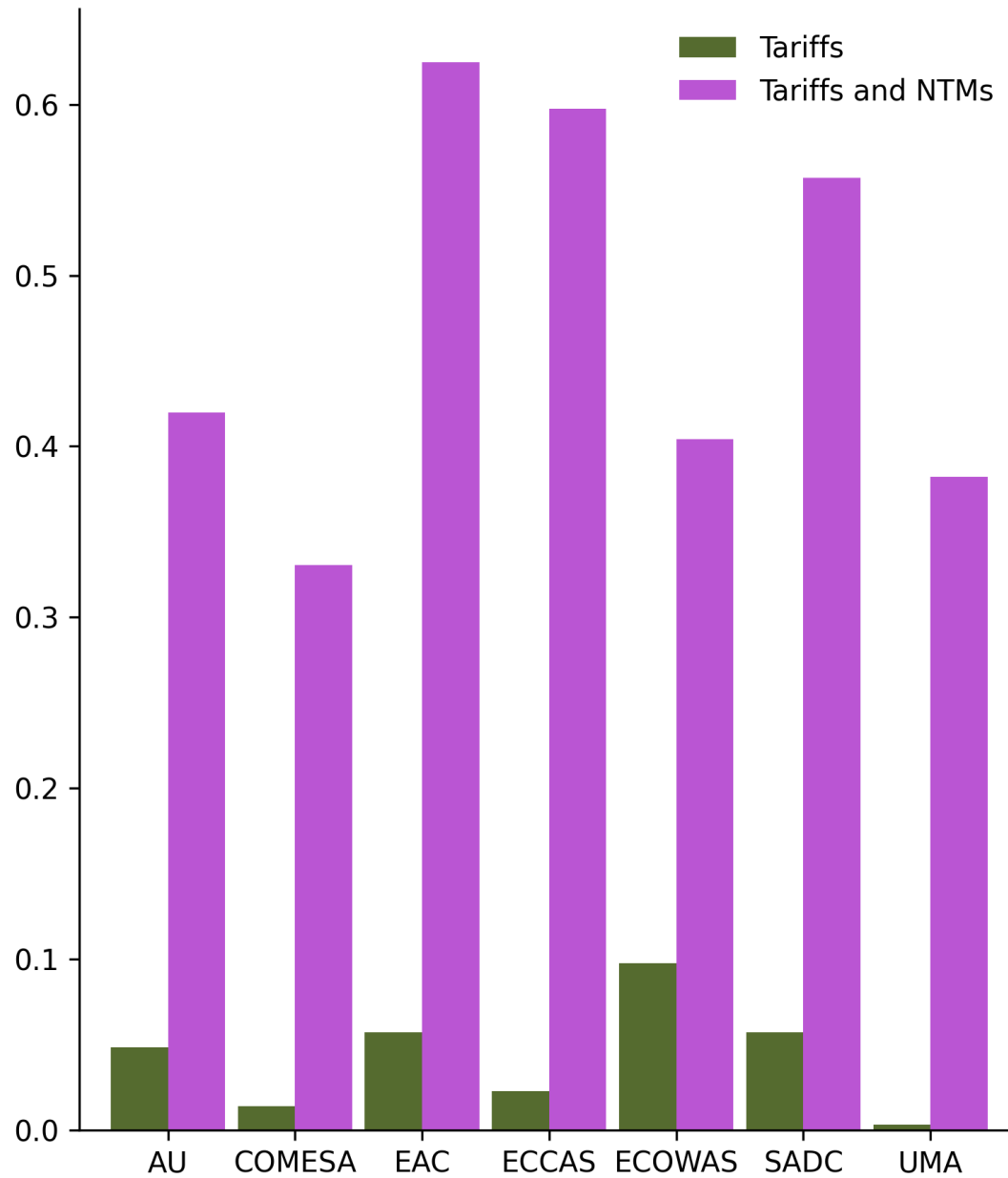


Results

- macro

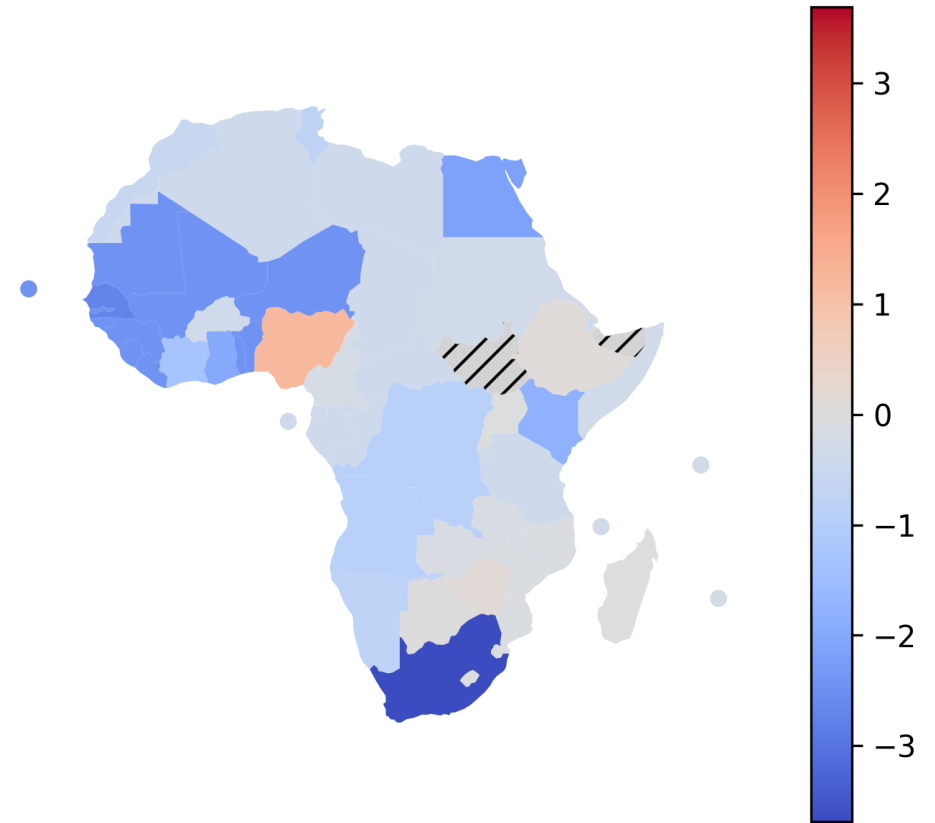
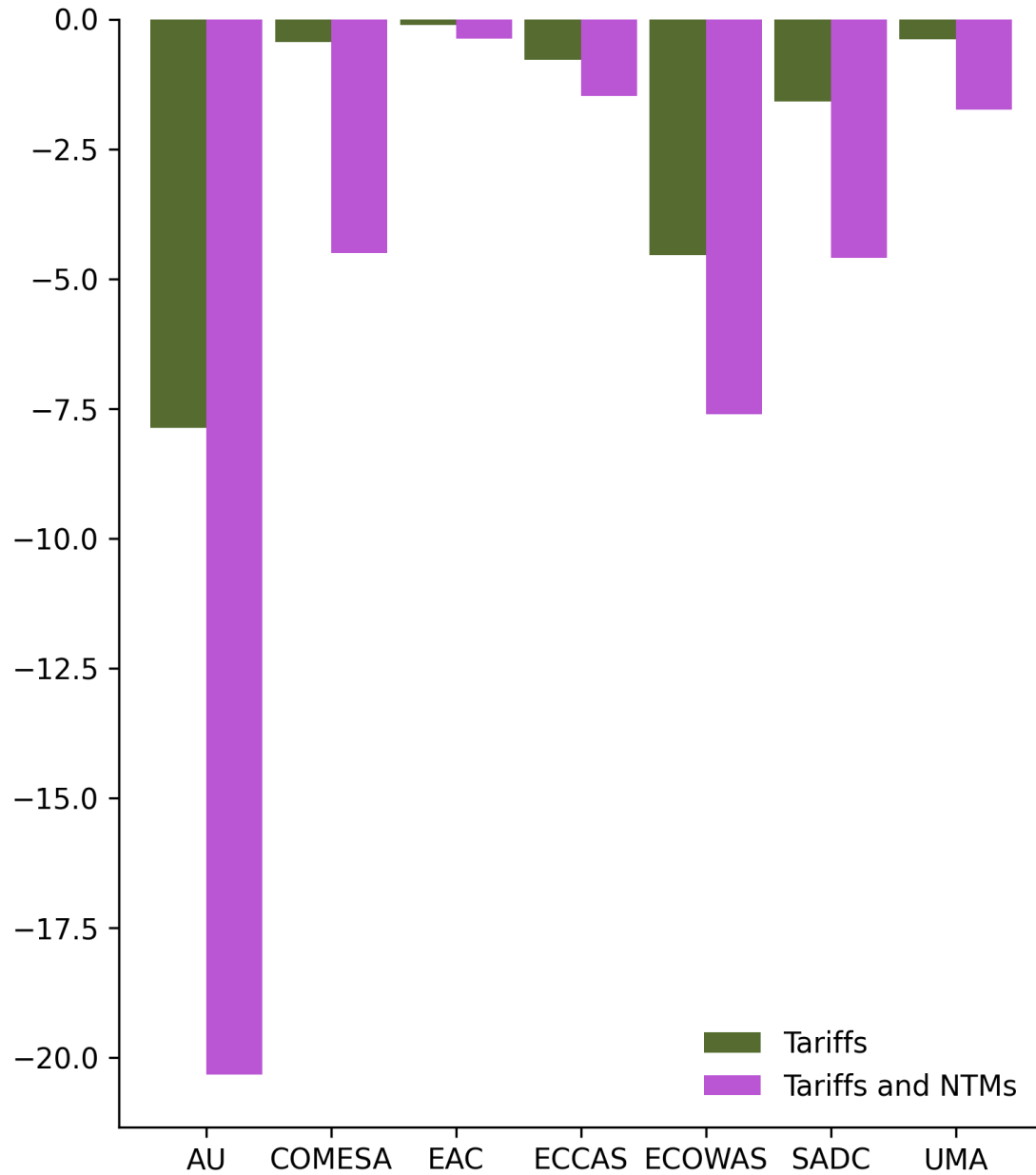


GDP (2035)



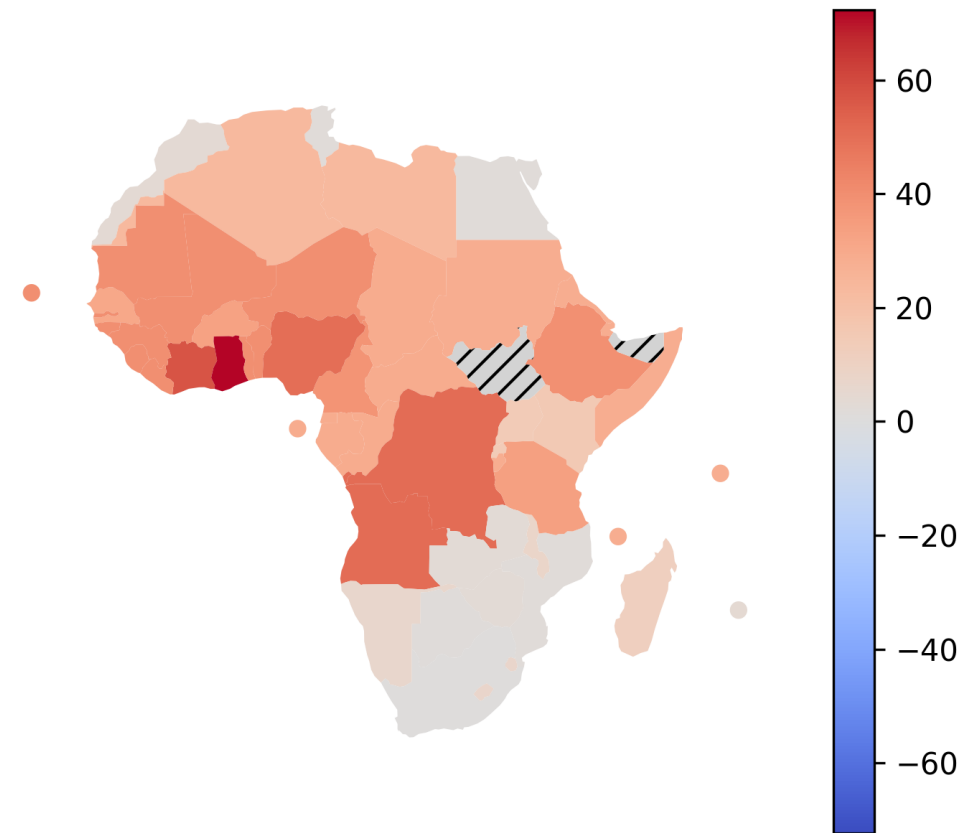
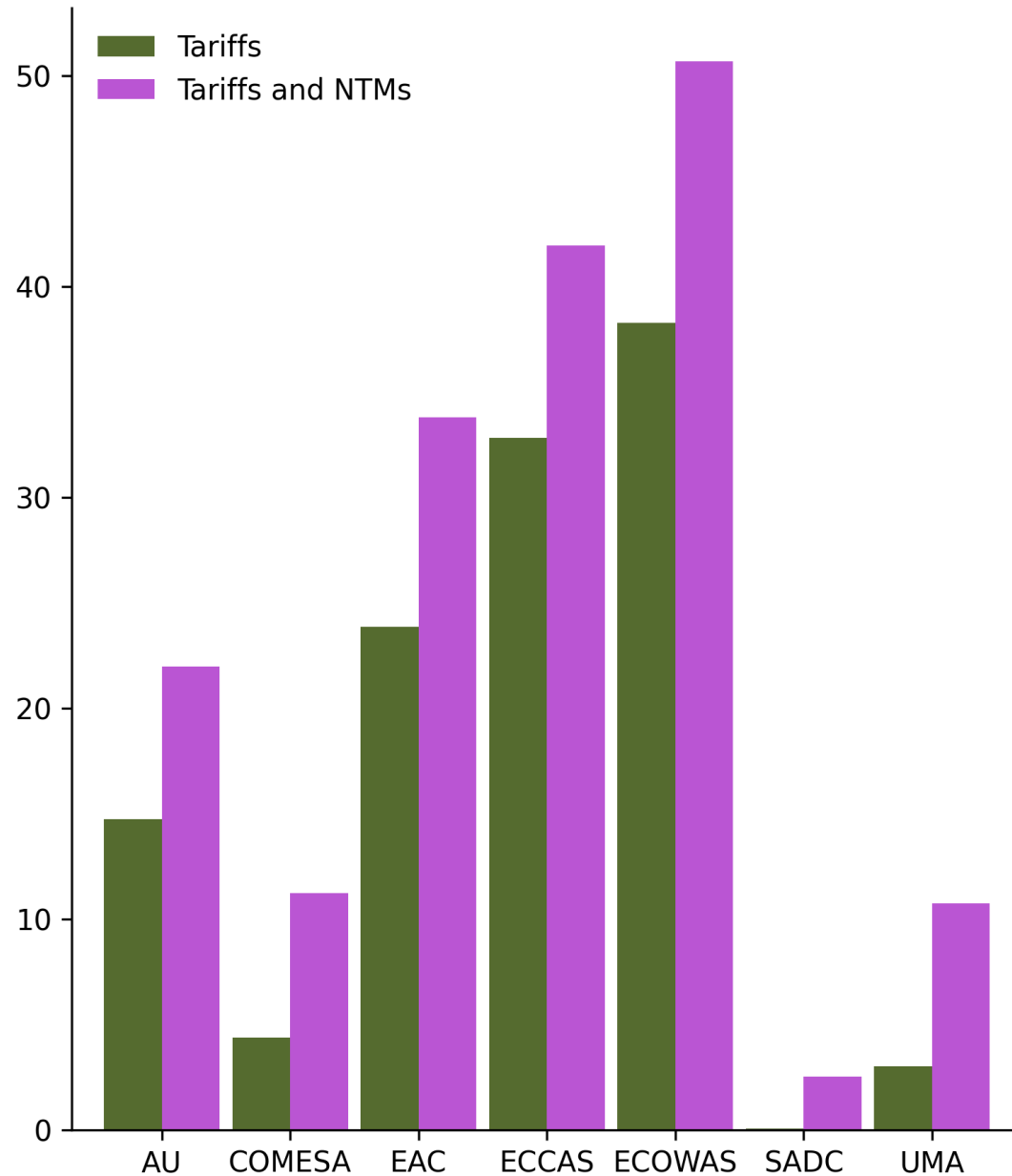
Min. -0.04% (Ghana)
Max. 1.61% (Rest of Western Africa)

Trade balance (billions of USD; 2035)



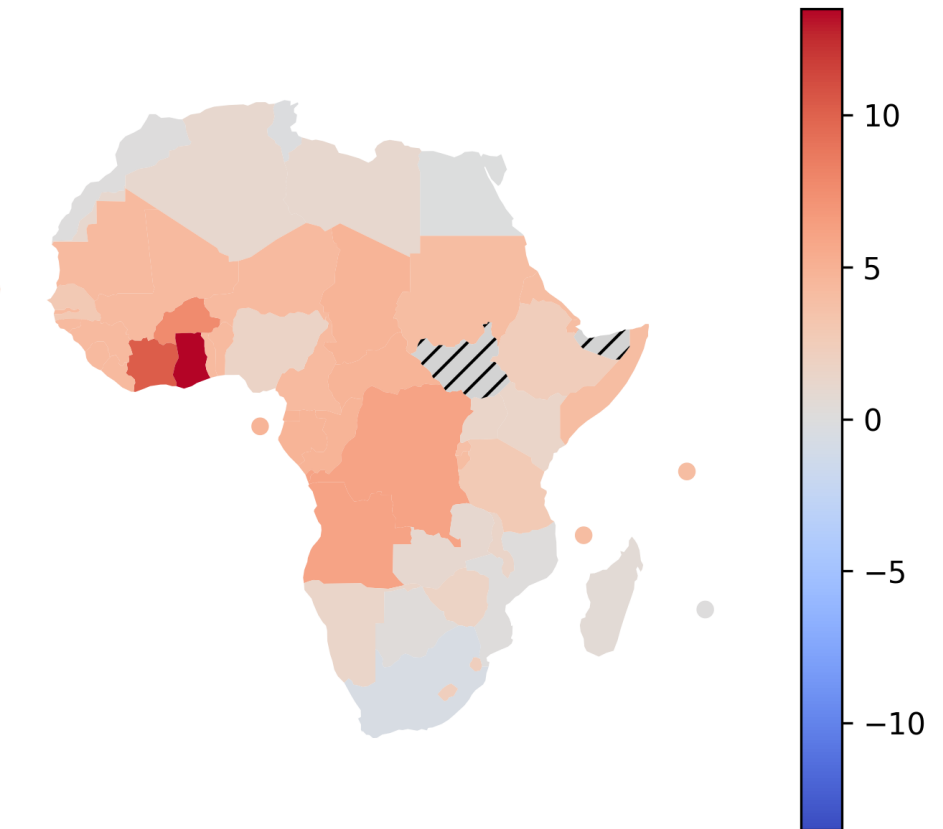
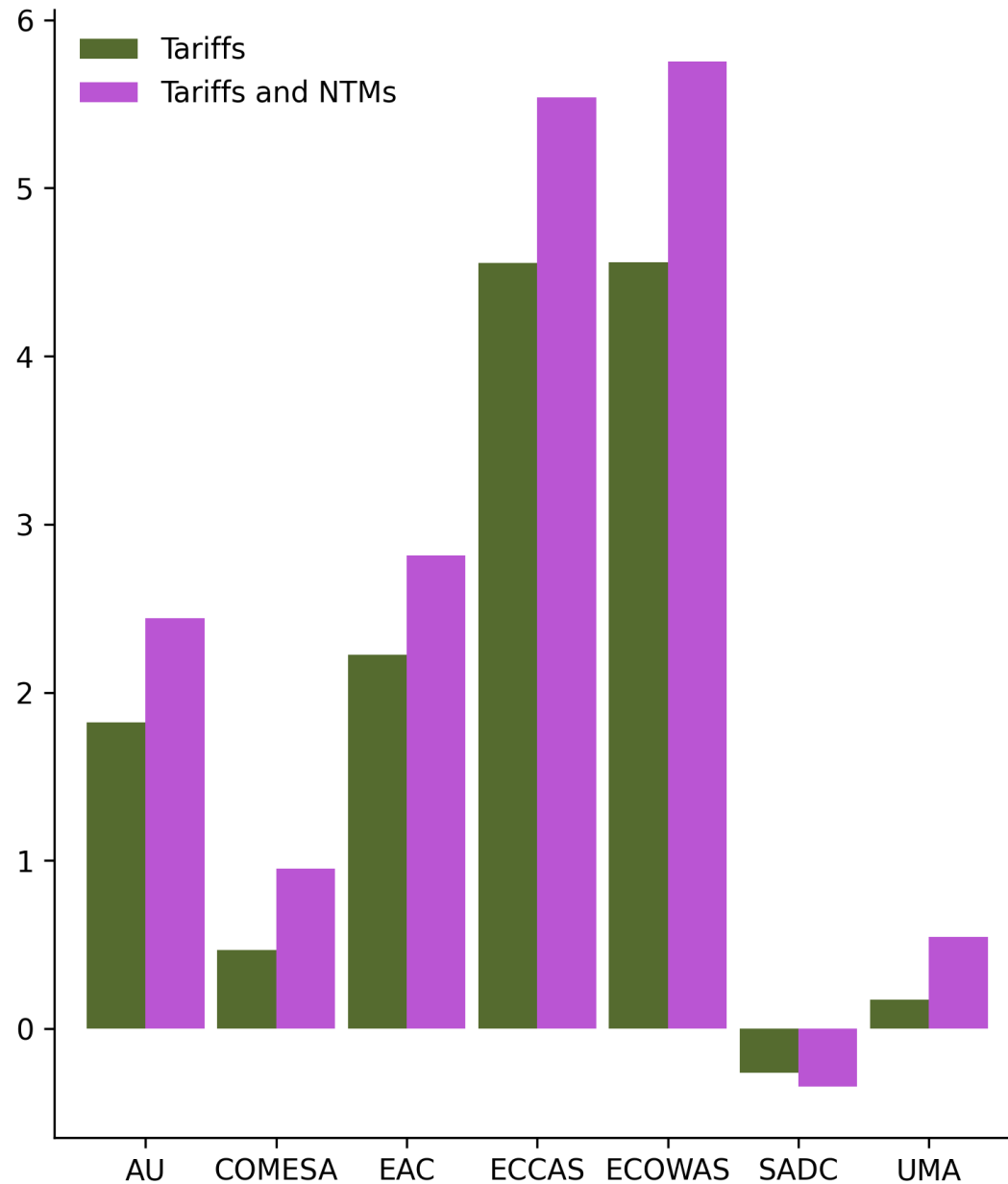
Min. -3.69 billions of USD (South Africa)
Max. 1.2 billions of USD (Nigeria)

Imports (intra-African; 2035)



Min. 0.95% (South Africa)
Max. 72.33% (Ghana)

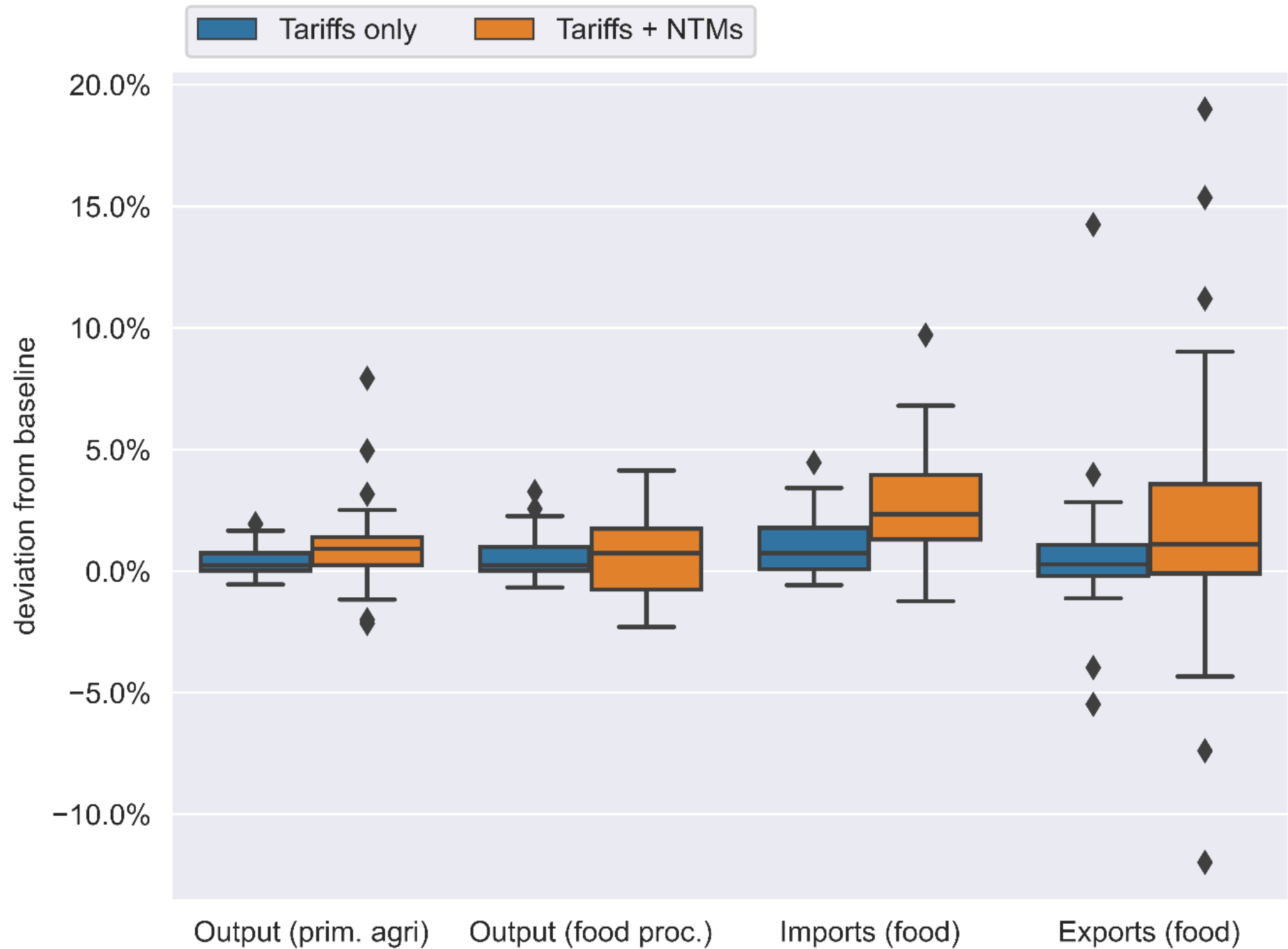
Share of intra-African imports (2035)



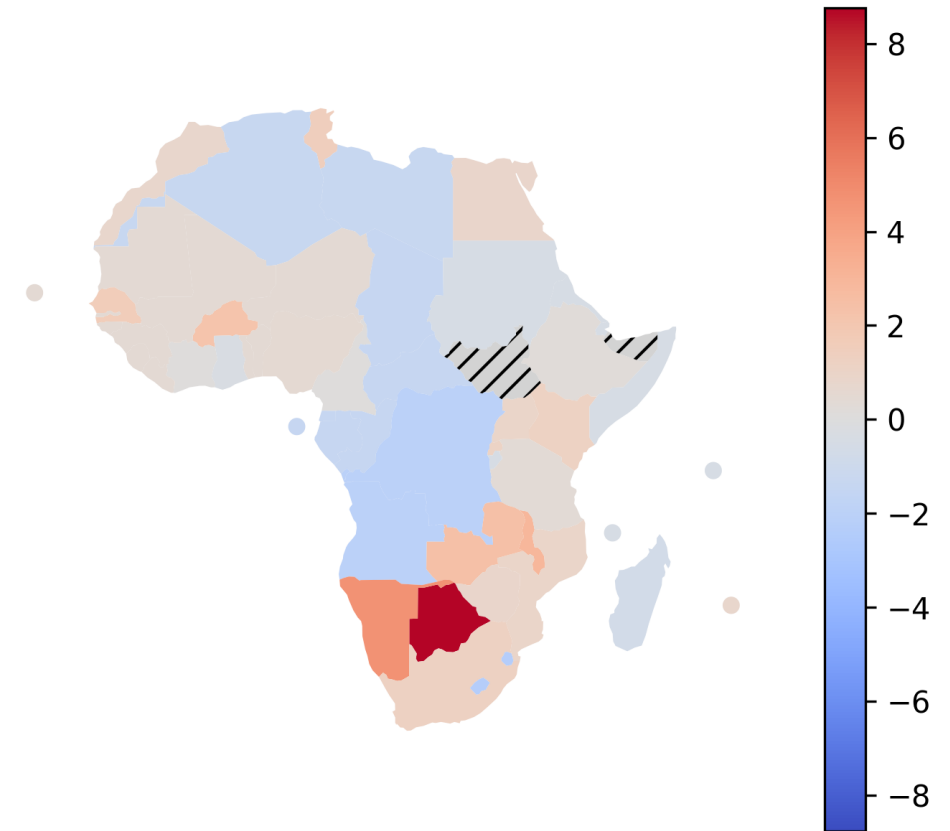
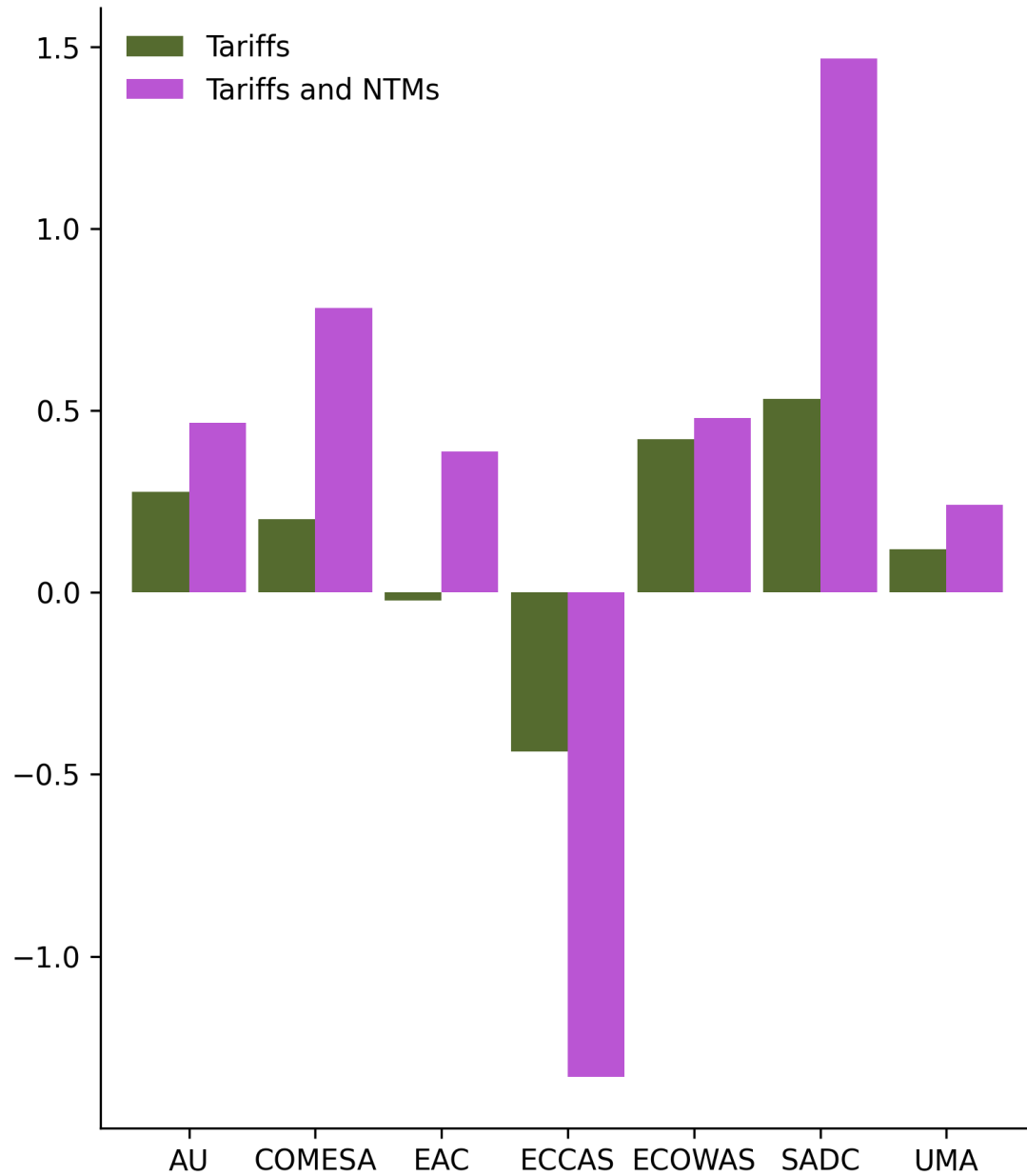
Min. -0.57% (South Africa)
Max. 13.51% (Ghana)

Results

- agri-food

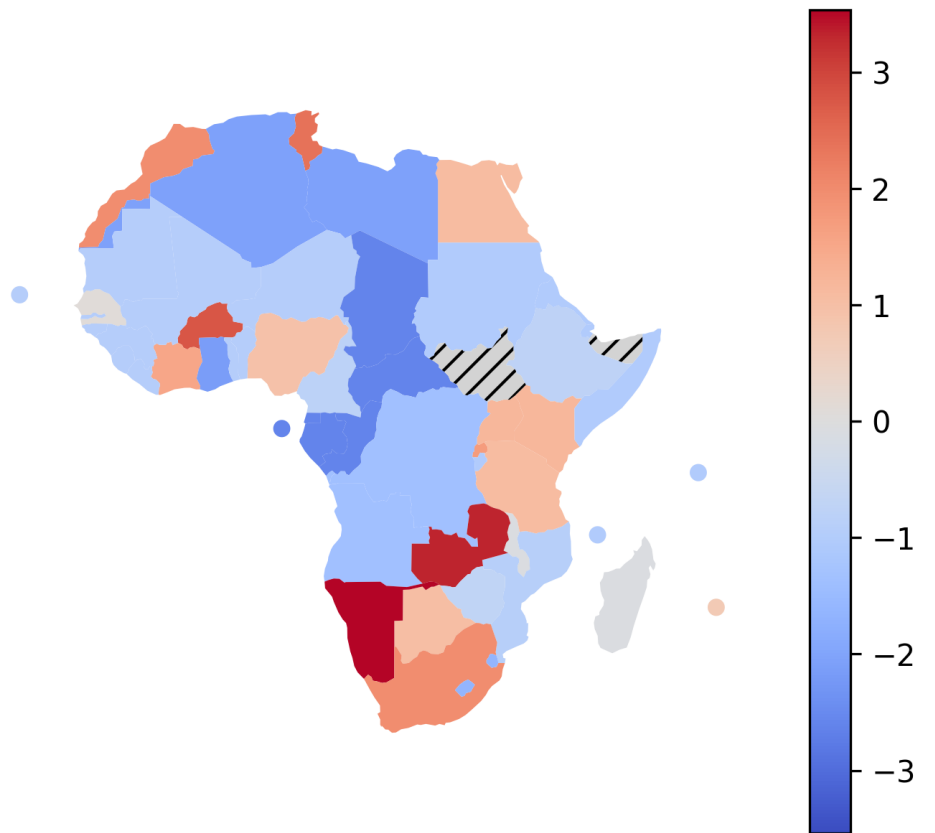
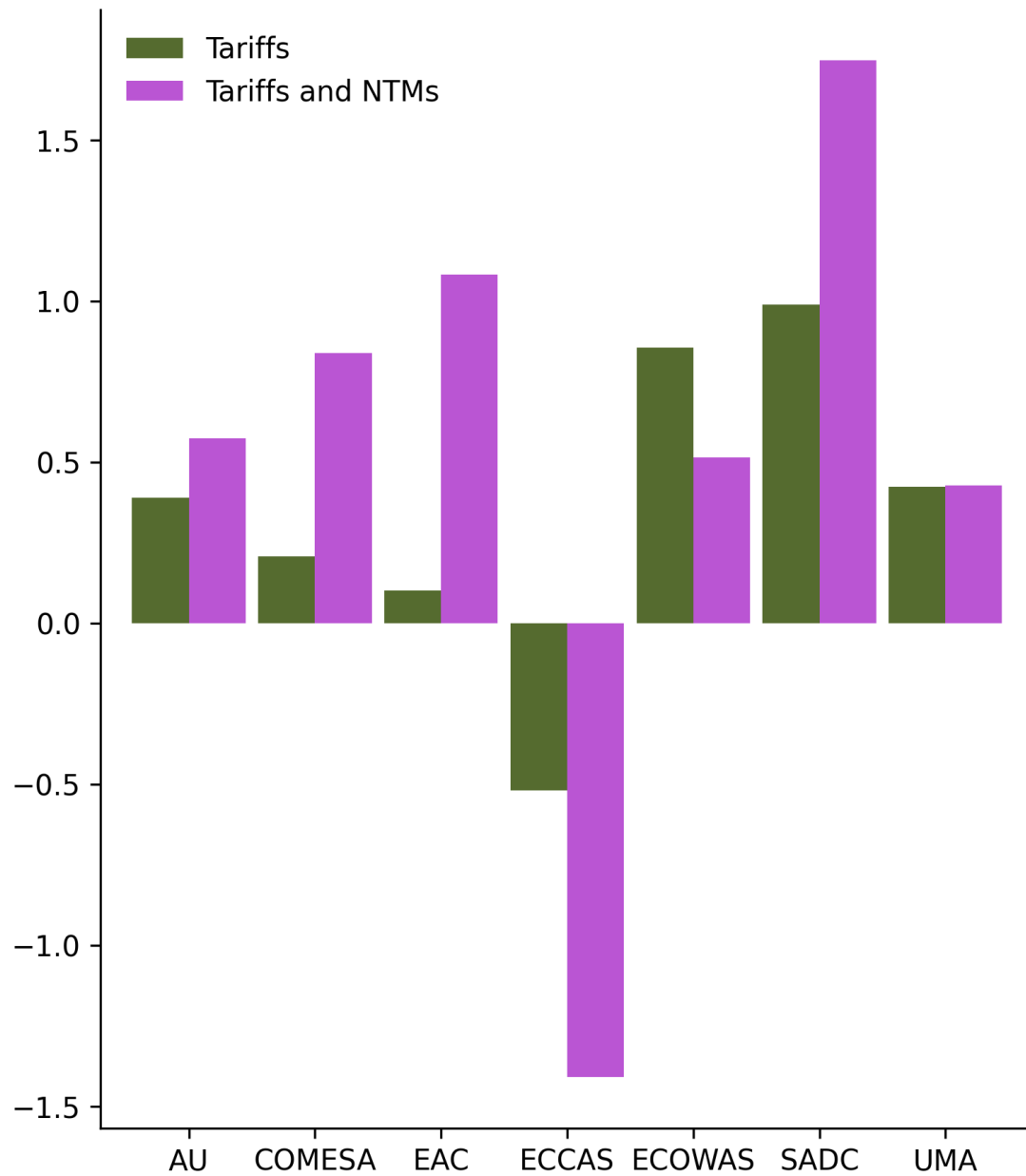


Primary agricultural output (2035)



Min. -2.35% (Rest of SACU)
Max. 8.76% (Botswana)

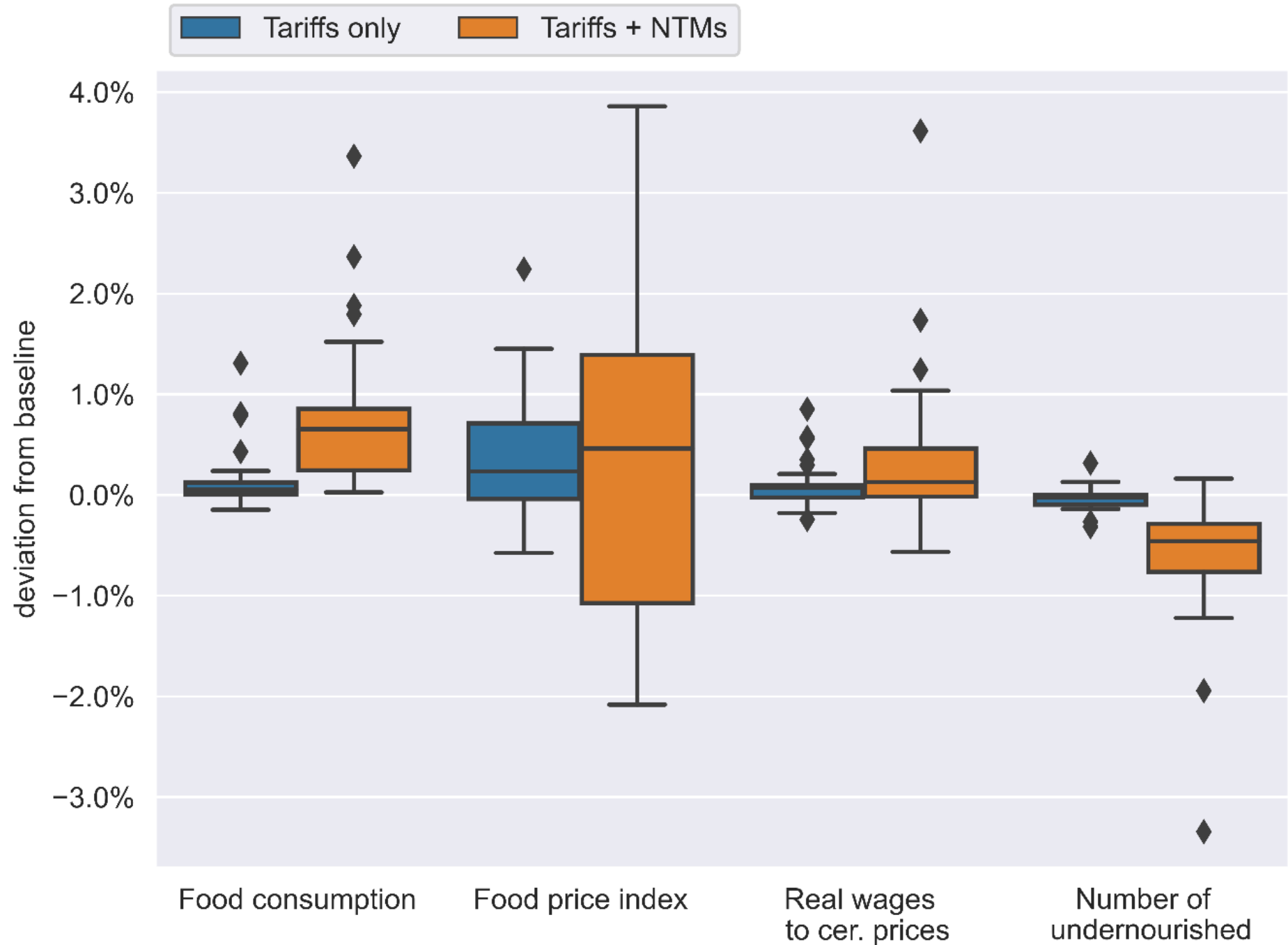
Processed foods output (2035)



Min. -2.61% (Rest of Central Africa)
Max. 3.54% (Namibia)

Results

- food security



Key messages

- Production will be more regionally concentrated by commodities
- Food imports will increase, mostly within Africa
 - especially resource rich countries dependent on imports
- Overall effects are positive on food security:
 - disposable income increases on most of the regions
 - food consumption increases throughout
- However, mixed outcomes for food prices with an overall increase
 - Purchasing power for food for low-income groups deteriorate in several regions
 - Targeted tariff cuts have mitigation potential

Further developments

- Data
 - GTAP database v11
 - Updated 2017 tariff rates
 - Actual tariff offers?
- Climate policies
 - The AfCFTA potential for climate change adaptation and mitigation
 - Simulations with various SSPs

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Thank you

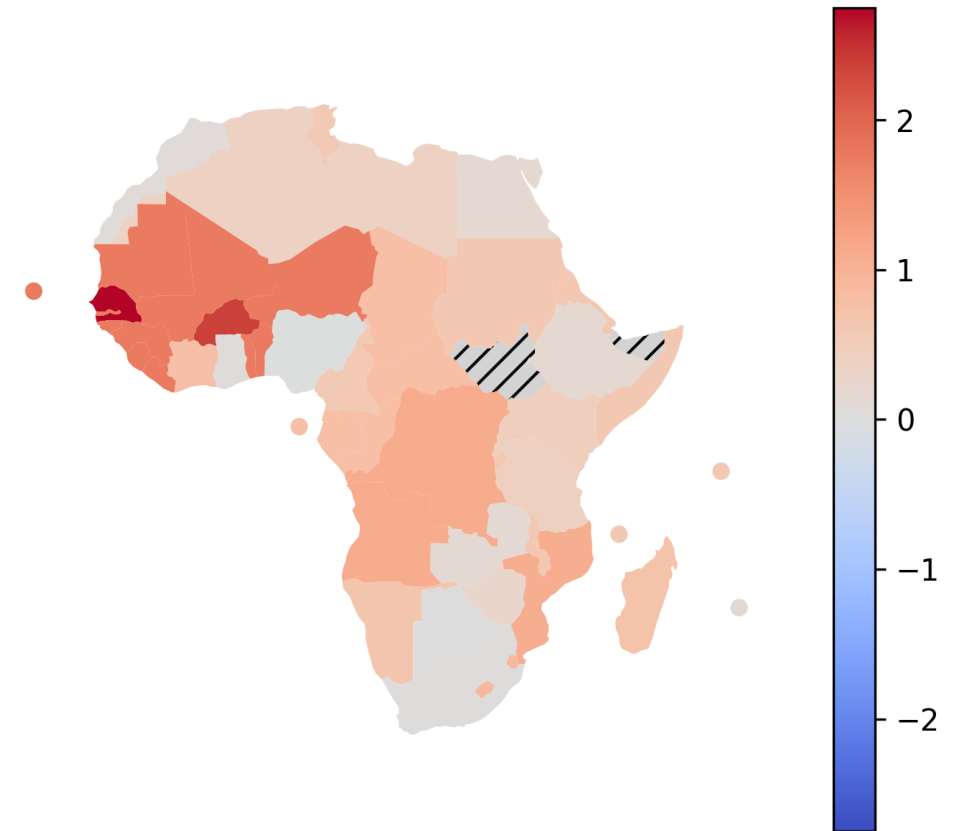
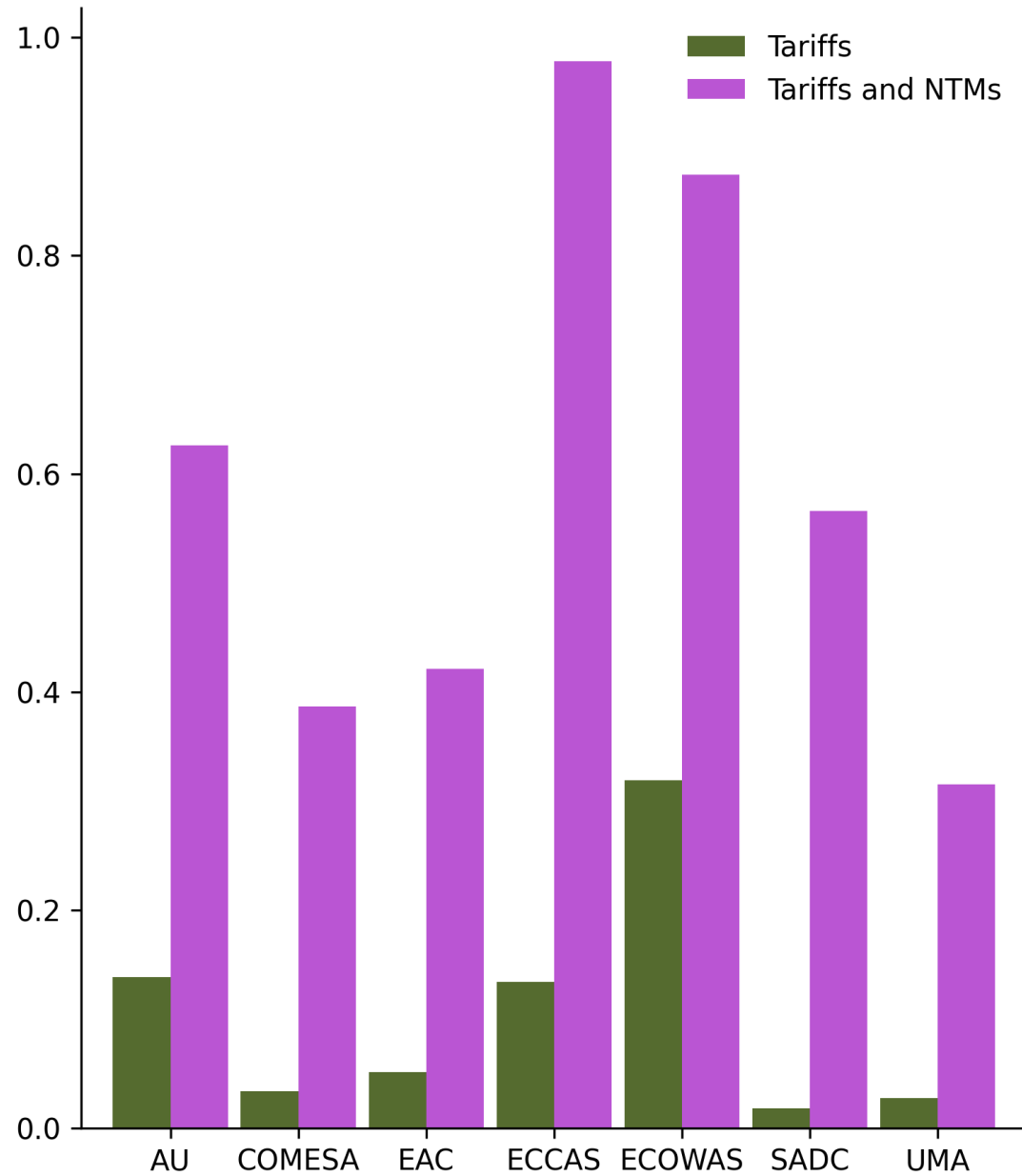


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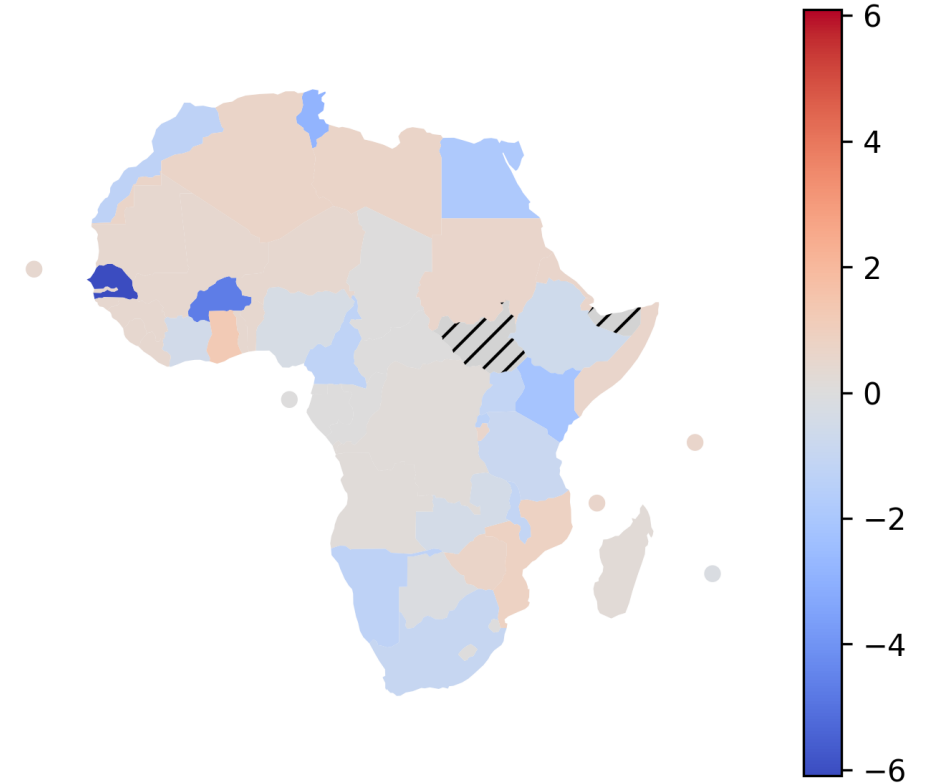
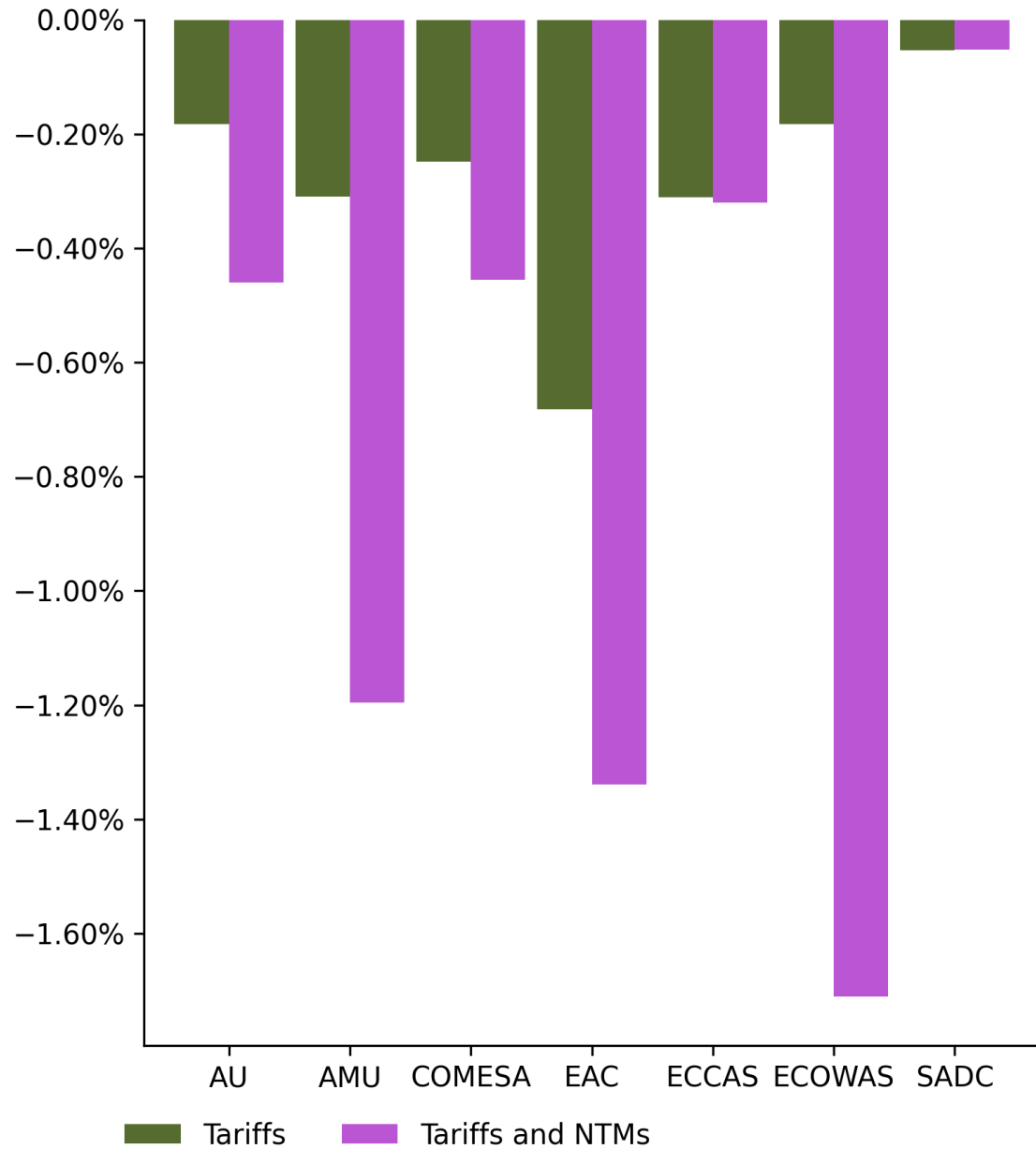


Food consumption (2035)



Min. -0.0% (Nigeria)
Max. 2.75% (Senegal)

Number of Undernourished (2035)



Min. -6.1 % (Senegal)
Max. 1.26 % (Ghana)