Trade, Growth, and Welfare Impacts of the CFTA in Africa

Nicolas Depetris Chauvin, Priscila Ramos and Guido Porto

HEG, CONICET-UBA, FCE-UNLP
10th FIW Research Conference, 9th and 10th November 2017, Vienna.

Table of contents

Introduction

Context

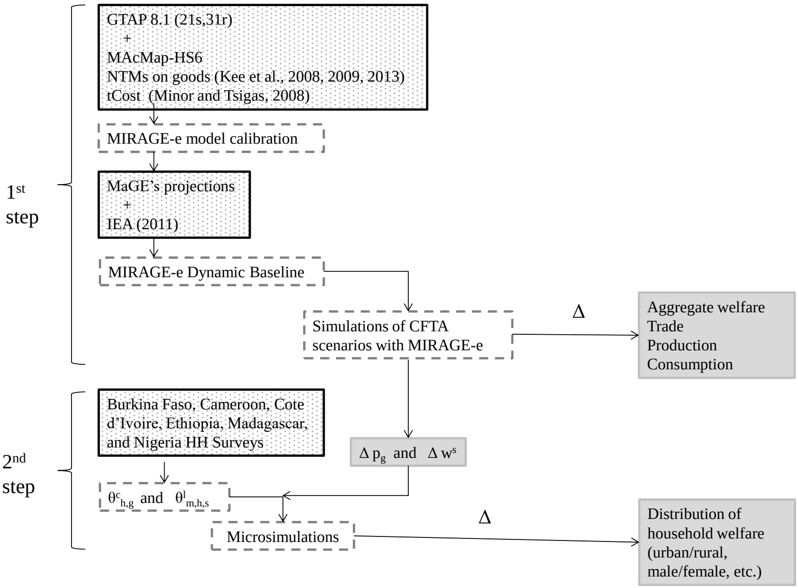
- Context of African agreements
- Literature (Tanyi, 2014; Cheong et al., 2012 ;Guimbard and Le Goff, 2015)
- Dispersion in current African protection across sectors and partners (tariffs, NTMs, transaction costs)

Objectives

- To quantify trade, growth and welfare impacts of the CFTA under different modalities of implementation (tariffs, NTMs, transaction costs).
- Focusing on the welfare impact at the household level of 6 SSA countries (Burkina Faso, Cameroon, Cote d'Ivoire,Ethiopia, Madagascar and Nigeria).

Methodolgy

A two-step approach



Regional and Sector aggregation

Two categories of countries, 31 countries/regions		Three categories of goods, 21 sectors	
CFTA members		*Agriculture and Food products*	
	Maghreb and Egypt		111 124 Cereals and Bread
	Benin		112 113 114 126 Fruits and Vegetables
	Burkina Faso		123 Oil seeds
	Cameroon		119 Other Staple food
	Cote d’Ivoire		127 Cotton
	Ghana		117 Meat and livestock
	Guinea		118 Dairy products
	Nigeria		116 Fish
	Senegal		115 Vegetable oil and fats
	Rest of Africa		121 122 125 Tobacco and Beverages
	Rest of Western Africa (Gambia)	*Energy and manufacturing products*	
	Ethiopia		210 Energy
	Madagascar		220 Textile apparel
	Malawi		240 Household items and furniture
	Mozambique		250 Other Physical goods
	Rwanda		230 Electronic and electrical goods
	Tanzania	*Services*	
	Uganda		350 Other services
	Botswana		310 Transportation
	South Africa		340 Communication
Traditional African trade partners			430 Festivities
	China		320 330 Health and Education
	Japan		310 Transportation
	Republic of Korea	*Rest of goods and services*	
	India		
	United States of America		
	Brazil		
	European Union		
	EFTA		
	Russia		
	Gulf Cooperation Council		
Rest of the World			

Scenarios

Dynamic Baseline

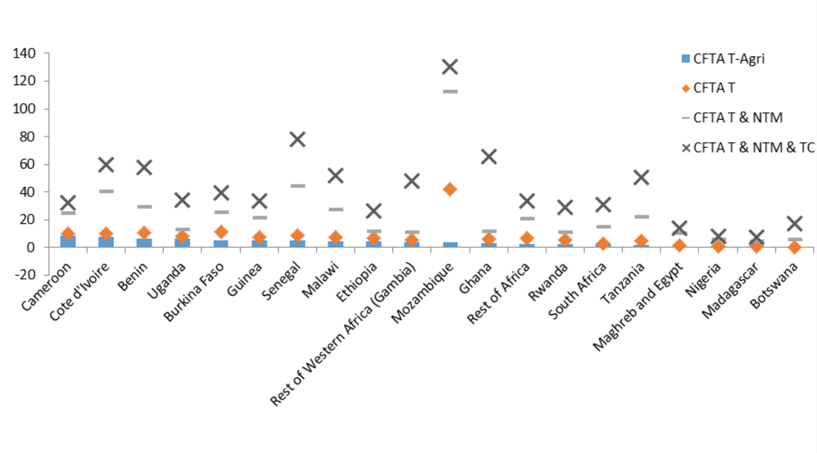
- MaGE projections: GDP, population, capital formation, energy productivity and world prices.
- None of regional PTAs included (e.g. Tripartite FTA)

CFTA simulations

Scenarios	Variables	Shocks
CFTA T-Agri	Tariffs in agricultural products	-100 per cent by 2027
CFTA T	Tariffs in all goods	-100 per cent by 2027
CFTA T & NTM	Tariffs in all goods	-100 per cent by 2027
	NTMs in all goods	-50 per cent by 2027
CFTA T & NTM & TC	Tariffs in all goods	-100 per cent by 2027
	NTMs in all goods	-50 per cent by 2027
	Transaction Costs in all goods	-30 per cent by 2027

Trade Results

Trade Variation in African countries across CFTA scenarios (2027)



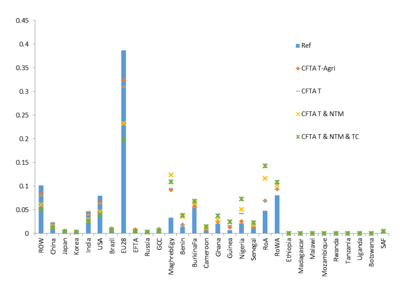
Export, Imports and TOT variation in 6 SSA countries

Table 1: Trade Impact to the six SSA countries (% var. to the baseline)

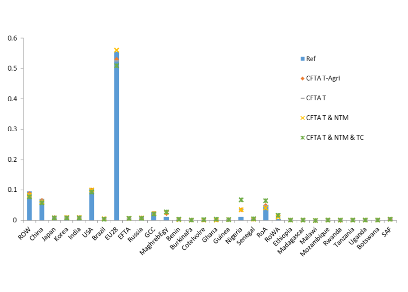
		Short-run (2017)					Long-run (2027)				
		T-Agri	T	NTM	TC	**Total**	T-Agri	T	NTM	TC	**Total**
Burkina	Exports	-0.01	-0.01	-0.89	-1.19	**-2.1**	5.39	5.62	14.62	13.55	**39.18**
	Imports	-0.01	-0.01	-1.16	-1.47	**-2.65**	4.89	5.73	20.78	16.73	**48.13**
	TOT	0	0	-0.32	-0.31	**-0.63**	-0.85	-0.39	4.42	2.01	**5.19**
Camer.	Exports	0	0	-0.71	-0.54	**-1.25**	8.51	1.23	15.04	7.57	**32.35**
	Imports	0	0	-0.86	-0.55	**-1.41**	9.47	1.45	23.81	8.28	**43.01**
	TOT	0	0	-0.09	0.01	**-0.08**	-0.25	-0.02	2.29	-0.14	**1.88**
Cote d'I.	Exports	-0.01	0	-1.53	-1.12	**-2.66**	7.48	2.25	31.37	18.75	**59.85**
	Imports	-0.01	0	-1.64	-1.07	**-2.72**	10.12	2.84	32.76	15.28	**61**
	TOT	0	0	-0.02	0.1	**0.08**	2.02	0.45	0.28	-1.56	**1.19**
Ethiopia	Exports	-0.02	0	-0.18	-0.47	**-0.67**	4.26	2.27	5.43	14.29	**26.25**
	Imports	-0.01	0	-0.18	-0.4	**-0.59**	4.08	1.83	7.07	14.5	**27.48**
	TOT	0	0	-0.04	-0.06	**-0.1**	0.55	-0.22	0.92	1.31	**2.56**
Madag.	Exports	0	0	-0.21	-0.29	**-0.5**	0.36	0.35	3.97	2.68	**7.36**
	Imports	0	0	-0.26	-0.31	**-0.57**	0.36	0.35	5.97	3.23	**9.91**
	TOT	0	0	-0.06	-0.05	**-0.11**	0.03	0.03	1.08	0.36	**1.5**
Nigeria	Exports	0	0	-0.17	-0.06	**-0.23**	0.46	0.45	5.24	2.03	**8.18**
	Imports	0	0	-0.2	-0.13	**-0.33**	0.65	0.63	5.39	3.73	**10.4**
	TOT	0	0	0.01	-0.05	**-0.04**	0.01	0.02	-0.35	0.62	**0.3**

Bilateral Trade (shares in total trade)

Cote d'Ivoire



Cameroon



Highlights

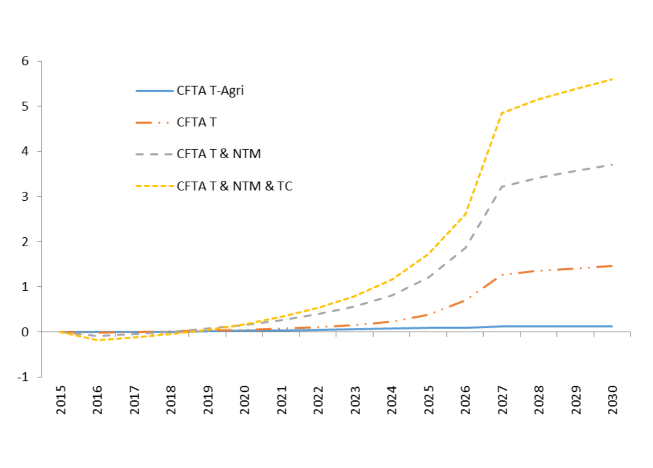
- Ethiopia's and Burkina Faso bilateral trade change similar to Cameroon's.
- Cote d'Ivoire more diversified bilateral trade pattern.
- Madagascar and Nigeria lower intra-Africa trade increase (lower initial protection than others).

Sectoral Trade

- Agricultural exports increase in Cote d'Ivoire (Cereals) and Ethiopia (Meat).
- The deeper CFTA liberalization, the greater Energy imports increase in most of countries (except in Madagascar), being Nigeria main intra-Africa exporter.
- Exports in Manufactures (Textiles) increase in Burkina Faso, Ethiopia, Cote d'Ivoire and Madagascar where lower NTMs and tCosts mainly explain those changes.

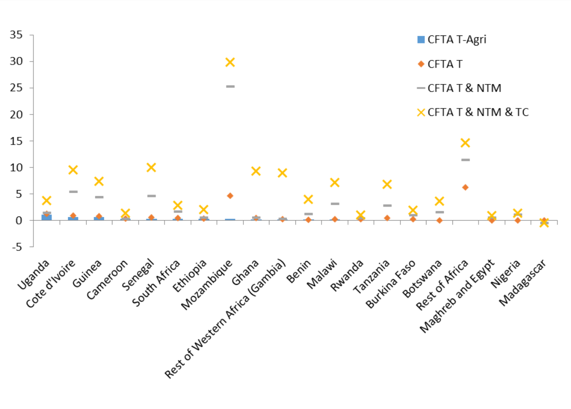
Growth Results

GDP growth in Africa



- Long-run: the deeper CFTA libelization, the greater growth rates in Africa.
- Short-run: economic costs when cutting NTMs and TC.

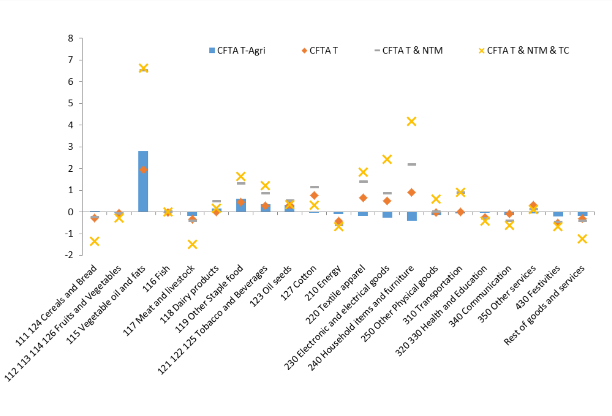
Uneven distribution of GDP growth across African countries



Drivers of growth mainly are the cut in:

- TAgri: Uganda, Guinea, Cote d'Ivoire and Ethiopia.
- +TManuf: in Mozamique.
- +NTMs: Cote d'Ivoire, Guinea, Senegal, Mozambique, Malawi, Tanzania and RoA.
- +TCosts: in all but mainly in Ghana and Gambia (not in Madagascar).

Sector Production pattern change in Africa



- TAgri cut: + Vegetable oils and fats
- +TManuf: + Textile apparels, electronics and electrical products.
- +NTMs: +cotton
- +TC: + Staple food, Beverages and Tobacco.

Households Welfare Results

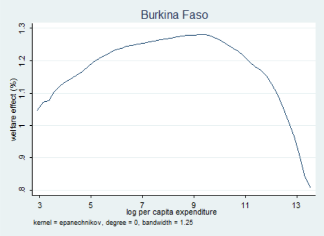
Income distribution of welfare effect across HH in 6 SSA

Positive welfare effects on average in all countries and scenarios.
BUT, uneven distributive welfare gains:

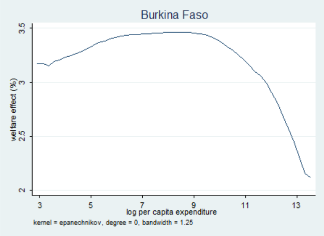
	Pro-poor Pro-rich
Burkina Faso	$+ > +$
Cameroon	$+ < +$
Cote d'Ivoire	$+ < +$ (TAgri cut)
	$+ > +$ (TManuf, NTMs and TC cuts)
Ethiopia	$+ < +$
Madagascar	moderate $+ < +$
Nigeria	moderate $+ < +$

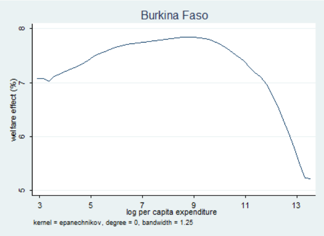
Welfare effect: example of non-parametric regressions in Burkina Faso

TAgri

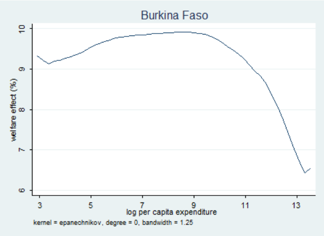


TAgri+TManuf





TAgri+TManuf+NTM



TAgri+TManuf+NTM+TC

Urban vs. rural welfare effect

	Urban-HH	Rural-HH
Burkina Faso	$+ > +$	
Cameroon	$+ > +$	
Cote d'Ivoire	$+ < +$	
Ethiopia	$+ > +$	
Madagascar	$+ > +$	
Nigeria	$+ > +$ only with tariffs cuts	
	$+ < +$ with NTMs and TC reduction	

HH Welfare effect by gender

	Female-headed Male-headed
Burkina Faso	$+ > +$
Cameroon	$+ = +$
Cote d'Ivoire	$+ < +$ with NTMs and TC reduction
	$- < +$ only with tariffs cut
Ethiopia	$+ > +$
Madagascar	$+ > +$ but smaller variations
Nigeria	$+ < +$

Conclusions

Summary

- Results sensitive to trade liberalization modalities of the CFTA and the current level of protection (tariffs patterns, NTMs and transaction costs).
- Greater gains under additional reduction in NTMs and on trade facilitation improvements.
- Trade diversion effects against the EU (EPA), US, China, India, Brazil and GCC.
- Intra-Africa trade pattern intensifies except when current preferences are eroded.
- Main drivers of GDP and national welfare: lower NTMs and trade facilitation in the long-run.
- But welfare and growth results are uneven across countries and also within them:
    - Pro-poor in Burkina Faso but pro-rich in Cameroon and Nigeria.
    - Pro-female headed in Burkina Faso, Cameroon, Ethiopia and Madagascar (small).
    - Pro-rural households only in Cote d'Ivoire.

Next

Limitations of this work:

- CGE model assumptions and shocks (e.g., full-employment, perfect competition in all sectors, exogenous trade facilitation shock)
- Data (imperfect matching between HS6 products, GTAP sectors and surveys products)
- Impossible to trace sources of heterogeneity in HH welfare impact (protection variation, patterns of consumption, income sources)

Improvements in Africa integration scenarios:

- Liberalization in services
- Future challenge: Implementation of the CET for a future custom union given the disparities in tariffs structures across countries.

Questions? Comments? Suggestions?