2022 IFPRI Report on CGE modelling work
Antoine Bouet – a.bouet@cgiar.org

The African Continental Free Trade Area: a lack of ambition would be detrimental
Antoine Bouët, David Laborde and Fousseini Traoré
Chapter 5 of the AATM 2022 report – to be released early September 2022

We conduct a new evaluation of the African Continental Free Trade Area, based on the MIRAGRODEP model and the GTAP10 database aggregated into 40 sectors and 22 countries/regions. First, special attention is given to the treatment of tariff data. Indeed, the economic literature has shown that the use of consistent tariff aggregators is a crucial issue (see Anderson and Neary, 1994 and Anderson, 2009) and we use here optimal tariff aggregators (Laborde, Martin, and van der Mensbrugghe, 2017). Furthermore, the lists of sensitive and excluded products from liberalization are not known today and we use a political economy model recognized by the theoretical literature for the selection of these products (Jean, Laborde, and Martin, 2010). Second, we use an estimate of the restrictive impact of non-tariff measures (ad-valorem equivalents) that corrects for a statistical bias present in previous estimates (see Bao, Bouët, and Traoré, 2021). Third, we model the non-tariff measures in the MIRAGRODEP model in a more realistic way. Exporters must pay for a supplementary cost when facing an NTM and this cost is paid half by supplementary added value, half by supplementary intermediate consumption of local business services. We show that the AfCFTA is an interesting trade agreement which can bring benefits to African economies. However, these benefits will be significant only if the agreement is implemented ambitiously: in this regard, excluding products from liberalization and reducing the degree of ambition of the NTM negotiation could significantly reduce welfare and trade gains.

IFPRI report to the Agence Française de Développement (AFD)
Assessing the impact of the African Continental Free Trade Area on Morocco's economy
Antoine Bouët, David Laborde and Fousseini Traoré

This study, conducted for the Agence Française de Développement and released to the Moroccan Ministry of Economy and Finance, assesses the economic and trade consequences of the African Continental Free Trade Area (AfCFTA) on the Moroccan economy. The impact study is based on the MIRAGRODEP model, a multi-region, multi-sector model with recursive dynamics. The main source of data is the GTAP database and the version used for this impact study is GTAP10, aggregated into 40 sectors and 22 countries/regions. The protection data comes from the MAcMAP database, but additional sources, other than the International Trade Centre, were used to complete the information, such as export taxes. This report presents six scenarios: (i) two scenarios of tariff liberalization under AfCFTA (with or without sensitive and excluded products); (ii) three scenarios include, in addition to tariff liberalization (with sensitive and excluded products), a dismantling of non-tariff measures by 80, 50 and 25 percent respectively between African economies. They are called AfCFTA-MNTs80%, AfCFTA-MNTs50% and AfCFTA-MNTs25% respectively. The 25% cut represents a minimum target. The AfCFTA-MNTs80% scenario represents a very ambitious liberalization of these non-tariff barriers. (iii) A scenario of Morocco's trade integration with ECOWAS with implementation of the AfCFTA in the baseline. The results of this assessment are not available. This study was accompanied by a course on computable general equilibrium modeling and the use of MIRAGRODEP given to civil servants from the Ministry.

COVID-19 impacts
David Laborde

The following contributions were based on MIRAGRODEP (based on GTAP10) + POVANA household level modelling

https://scholar.google.com/citations?view_op=view_citation&hl=fr&user=sPLmREMAAAAJ&sortby=pubdate&citation_for_view=sPLmREMAAAAJ:wE-fMHVdjMkC
https://scholar.google.com/citations?view_op=view_citation&hl=fr&user=sPLmREMAAAAJ&sortby=pubdate&citation_for_view=sPLmREMAAAAJ:TlpoogIpr_IC
https://scholar.google.com/citations?view_op=view_citation&hl=fr&user=sPLmREMAAAAJ&sortby=pubdate&citation_for_view=sPLmREMAAAAJ:DkZNVXde3BIC
https://scholar.google.com/citations?view_op=view_citation&hl=fr&user=sPLmREMAAAAJ&sortby=pubdate&citation_for_view=sPLmREMAAAAJ:SGW5VrABaM0C

These reports evaluate the consequences of the Covid-19 pandemic on worldwide poverty and food insecurity.

Food System Summit
David Laborde

The following contributions were based on MIRAGRODEP (based on GTAP10) with environmental modules (IFPRI specific database) + POVANA household level modelling
Support of the UNFSS Scientific group; references in various supporting documents; assessment of trade-offs and coalition options
https://sc-fss2021.org/wp-content/uploads/2021/09/ScGroup_Reader_UNFSS2021.pdf

Repurposing of farm policies
David Laborde

The following contributions were based on MIRAGRODEP (based on GTAP10 with updates and alternative policy datasets) with environmental modules (IFPRI specific database) and poverty analysis
https://openknowledge.worldbank.org/handle/10986/36875

The report finds that repurposing a portion of government spending on agriculture each year to develop and disseminate more emission-efficient technologies for crops and livestock could reduce overall emissions from agriculture by more than 40 percent. Meanwhile, millions of hectares of land could be restored to natural habitats. The economic payoffs to this type of repurposing would be large. Redirecting about $70 billion a year, equivalent to one percent of global agricultural output, would yield a net benefit of over $2 trillion in 20 years.

Supporting WTO negotiations for MC12
David Laborde

The following contributions were based on MIRAGRODEP (based on GTAP11 pre-release with adjustment. Alternative farm policy support dataset: update of WTO notifications and Ag-Incentives data)
https://www.ifpri.org/publication/harmonizing-and-reducing-trade-distorting-domestic-support-analysis-impacts-new
https://www.ifpri.org/publication/new-disciplines-domestic-support
https://www.ifpri.org/publication/impacts-agricultural-producer-support-climate-and-nutrition-outcomes-special-emphasis
https://www.ifpri.org/publication/are-plurilaterals-promising-trade-liberalization-modality

Support to FAO SOFI (The State of Food Security and Nutrition) projections for prevalence of undernourishment until 2030

David Laborde

The following contributions were based on MIRAGRODEP + POVANA household level modelling

SOFI 2021 report (https://www.fao.org/publications/sofi/2021/en/)

+ New updates in SOFI 2022

Drivers of global food trade pattern: the role of productivity and trade costs

David Laborde

Background document for FAO SOCO (The State of Agricultural Commodity) report 2022