

# The Computable General Equilibrium (CGE) model

# Overview

1. Introduction
2. Default Model Data
3. Expected Outcomes

# 1. Introduction (1)

- The CGE component will compliment the consultations and inputs gathered and analysed from key stakeholders on the project as discussed in survey session.
- The CGE modelling is aimed at providing a quantitative analysis of the AfCFTA in a general equilibrium framework.
- Extant studies undertaken to assess FTAs are mostly carried out using CGE models.
- CGE models are computer-based simulations used for the overall assessments of trade agreements at region, country and broad sector level

# 1. Introduction (2)

- With CGE modeling, we are able to provide a more concrete welfare analysis of the AfCFTA that will influence real policy making.
- We will also be able to analyse the trade-off between AfCFTA efficiency and distribution issues.
- It will further facilitate building a linkage between policy makers and stakeholders in Nigerian MSMEs, and further provide a basis for dialogue

## ❖ Default model data (1)

- ▶ The modelling analysis adopted will assess the implications of the AfCFTA modalities on trade and goods in Africa.
- ▶ The analysis and assessment are premised on **scenarios** related to liberalization of trade in goods as implied in the AfCFTA reform.
- ▶ Model - the dynamic multi-country multi-sector MIRAGE computable general equilibrium (CGE) model
- ▶ Data - the global trade analysis project (**GTAP**) database

## ❖ Default model data (2)

### ▶ Scenario definitions

- ▶ Base year [2004, 2007, 2011, 2014] (GTAP 10.0);
- ▶ Liberalization schedule
  - ▶ Limited tariff reductions (sensitive products)
  - ▶ Extended tariff reductions (non-sensitive products)
  - ▶ No tariff cuts (excluded products)
- ▶ The liberalization schedule scenarios are based on the AfCFTA negotiation forums

### ▶ The GTAP data

- ▶ The latest release of the GTAP (GTAP 10.0) represents 141 countries/regions and 65 sector coverage of classified goods and services
- ▶ It features four reference years (2004; 2007; 2011; 2014)

## ❖ Expected outcomes

Similar to the laid out objectives in the project background session, the CGE modelling component sets out to achieve two major outcomes:

### ▶ Macroeconomic Outcomes

The macroeconomic outcomes will include how AfCFTA will propel changes in income, gross domestic product, wages etc.

### ▶ Sector-Specific Outcomes

The CGE model will also provide outcomes per sector such as, output effects, employment effects (high and low skilled), price effects, changes in value of imports and exports.

Thank you for your attention