Quantifying the "Mobility Dividend" of the AfCFTA: A GTAP-GMig2 Assessment of African Labor and Trade Integration

Topic: SAM and CGE Modelling for Food System Transformation and Policy Evaluation (II)
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1. Background and Motivation: The African Continental Free Trade Area (AfCFTA) is poised to fundamentally reshape the continent's economic architecture. However, its success is intrinsically linked to its sister agreement, the Protocol on Free Movement of Persons (FMP), which has faced significant political headwinds and delayed ratification. To date, macroeconomic assessments of African integration have predominantly focused on the liberalization of goods and services through tariff and non-tariff measure (NTM) reductions (e.g. Simola et al. 2025 for a recent assessment). Consequently, the literature systematically undervalues the role of intra-African labor mobility as a co-engine of growth. Evaluating the AfCFTA without accounting for the FMP misses the profound demographic and structural realities of the continent.
2. Problem Statement and Core Contribution: The core contribution of this research is the estimation of the "Mobility Dividend"â€”the macroeconomic growth and welfare gains achieved when continental trade liberalization is coupled with regional labor market integration. While previous studies have modeled trade impacts, this research fills a critical gap by quantifying how an integrated, mobile continental labor force interacts with trade-induced capital accumulation. By isolating the independent and synergistic effects of the FMP alongside the AfCFTA, this study provides actionable evidence that maximum continental growth is unattainable without free labor movement.
3. Data and Methodology: To capture the complex mechanics of migration, this study utilizes both the database and the modeling framework of the GMig2 extension to the standard Computable General Equilibrium (CGE) architecture.
â€¢ The Data: We rely on the newly released GTAP-Migration (GMig2) Data Base for GTAP 11 (Aguiar and Walmsley, 2025). This provides a globally consistent baseline of bilateral population, labor by skill level, wages, and remittances, tracking 141 countries and 65 sectors calibrated to a 2017 reference year. The base data is updated with a pre-policy simulation to year 2022 that marks the start of the economic integration efforts in Africa.
â€¢ The Model: Simulations are conducted using the GTAP-GMig2 model (Walmsley et al. 2007), a global CGE model with bilateral trade enhanced with migration flows that explicitly tracks the movement of labor, the differential wages earned by migrant versus domestic workers, and the subsequent flow of bilateral remittances back to origin countries.
â€¢ The Closure: To capture the long-run synergy of deep integration, we apply a dynamic closure. This allows capital stocks to respond endogenously to shifts in rates of return. As trade barriers fall, investment increases, which in turn amplifies the productivity of the newly mobile workforce. The scenarios isolate: (1) Tariff reductions according to the AfCFTA modalities (based on Boysen 2024), (2) Tariff + NTM reduction, and (3) Enhanced Labor Mobility (MigPlus), alongside their combinations.
4. Preliminary Results and Structural Insights Base data analysis reveals profound heterogeneity in continental integration. For instance, West Africa demonstrates massive intra-regional labor circulation but relies almost entirely on the Rest of the World (ROW) for remittance inflows. Conversely, Southern Africa acts as a highly integrated regional hub for both labor absorption and intra-regional financial circulation.
Preliminary static simulations using the GMig2 model indicate that the Mobility Dividend acts as a massive, independent growth engine. Moving from a standard trade-response model to an enhanced mobility scenario (MigPlus) yields an additive GDP boost of approximately 2.2 percentage points for the continent as a whole. Crucially, this dividend remains robust regardless of the underlying trade policy (Tariffs vs. NTMs). Moving to the dynamic closure, we hypothesize that deep

integrationâ€”where capital can efficiently chase new market opportunities created by free trade and mobilized laborâ€”produces synergistic welfare gains that far exceed the sum of isolated policy pillars.