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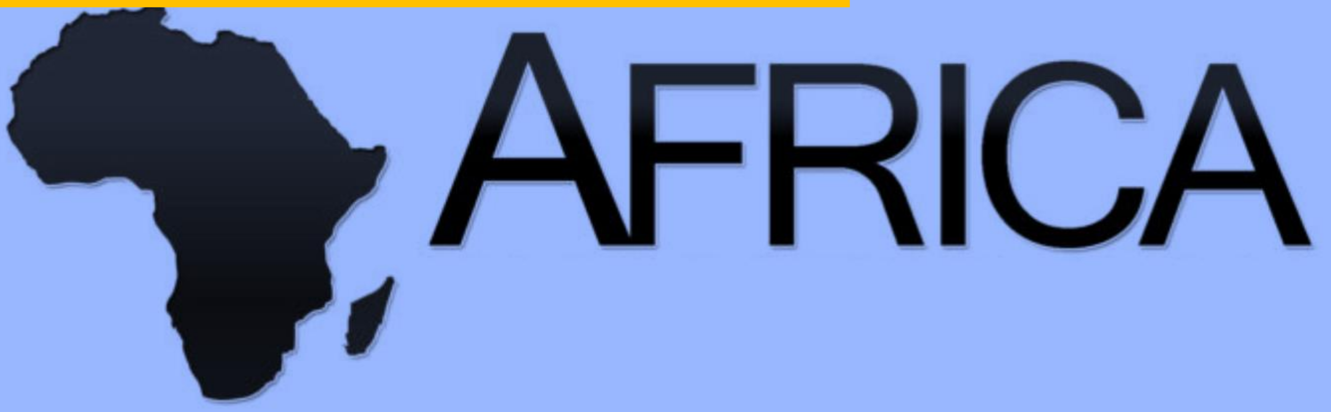

AFRICAN GREENFIELD INVESTMENT AND THE LIKELY EFFECT OF THE AFRICAN CONTINENTAL FREE TRADE AREA

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Key Highlights

- Using sector-level data on bilateral greenfield investment for 198 source and destination countries over 2003-2018 in a structural gravity model, we examine the likely effect of the African Continental Free Trade Area (AfCFTA) on African investment.
- Conditional general equilibrium estimates from counterfactual analysis show that the stock of intra-African greenfield investment in 2018 would have increased by 14 percent from a successful implementation of the AfCFTA in that year relative to the baseline scenario of no agreement.
- Exploring possible transmission channels for the investment-enhancing effect of the AfCFTA, we find the intra-African trade elasticity of greenfield investment to be positive, including for intermediates, especially in host countries with strong governance indicators.
- However, the effect of regulatory cooperation via bilateral investment treaties is found to be negative.
- This suggests that trade liberalization under the AfCFTA is more likely to foster intra-African investment via its positive effect on intra-African trade.

EXECUTIVE SUMMARY

Using sector-level data on bilateral greenfield investment for 198 source and destination countries over 2003-2018 in a structural gravity model, we examine the likely effect of the African Continental Free Trade Area (AfCFTA) on African investment. Conditional general equilibrium estimates from counterfactual analysis show that the stock of intra-African greenfield investment in 2018 would have increased by 14 percent from a successful implementation of the AfCFTA in that year relative to the baseline scenario of no agreement. Exploring possible transmission channels for the investment-enhancing effect of the AfCFTA, we find the intra-African trade elasticity of greenfield investment to be positive, including for intermediates, especially in host countries with strong governance indicators. However, the effect of regulatory cooperation via bilateral investment treaties is found to be negative. This suggests that trade liberalization under the AfCFTA is more likely to foster intra-African investment via its positive effect on intra-African trade.

BACKGROUND

Attracting FDI is an important policy objective of African countries, which share an ambitious agenda to transform their economies by increasing the share of manufacturing in GDP, trade and employment. At the same time, they look actively to build on their young population to lead developments in services and the digital economy. Facilitating economic transformation exclusively on a growing population presents problems. Productivity will not rise (and real incomes will remain low) if labour is not matched with large volumes of capital. But in addition, African firms also need to transform, adopting more productive and efficient production techniques and management, increasing their links with global firms. Therefore, attracting and facilitating investment and removing barriers that constrain it is critical to the process of economic transformation.

Traditionally, African countries used to attract FDI primarily from their former colonial powers. This has begun to change in the last twenty years as China, India and other emerging economies are becoming major investment partners for many

African countries. However, some patterns remain unchanged. Whether from former metropoles or from emerging economies, FDI into Africa tends to be located primarily in extractives. FDI into other sectors has been much more limited, affected by the lack of comparative advantages in these sectors and/or the existence of barriers that constrain it. In fact, African countries remain a marginal destination for FDI; the continent accounted for just 2.8 percent of the global stock of inward FDI in 2018 (the regional and temporal distribution of FDI in Africa is shown in Figure 1).

To circumvent these challenges, African countries aimed to create synergies amongst themselves and develop regional value chains by launching a major political process to negotiate and implement the AfCFTA in January 2012. The AfCFTA seeks to foster continental cooperation and the removal of trade and investment barriers among its members. The first phase of the AfCFTA involves the creation of a free trade area (FTA) among the African countries with disciplines covering trade in goods and services as well as dispute settlement. The Agreement Establishing the AfCFTA entered into force on 30 May 2019 for 24 of the 55 African Union countries and trading under the AfCFTA is expected to begin on 1 July 2020. Meanwhile, negotiations into the second phase will involve adding more elements of deep integration to the AfCFTA by agreeing on provisions that will address intellectual property rights, competition policy and investment.

Against this background, the paper estimates a structural gravity model and provides counterfactual analysis to examine the likely effect of the AfCFTA on African investment. It also explores likely transmission channels for the investment-enhancing effect of the AfCFTA. The paper also presents a granular analysis of announced greenfield investment projects in and out of Africa, providing stylized facts on recent trends, partner and sector composition, using fDI Markets, a firm-level database maintained by the Financial Times.

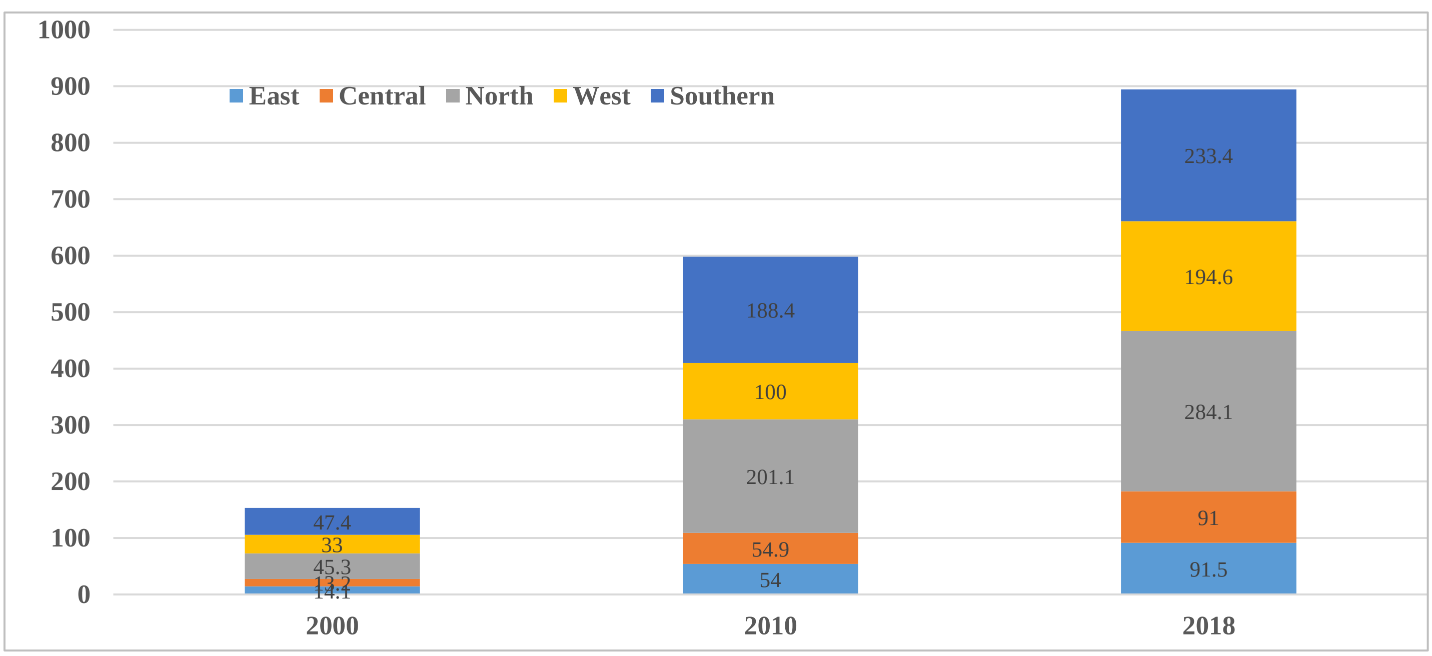
HYPOTHESES

Trade liberalization and reduction of trade costs within a trade-bloc may deter "tariff-jumping" horizontal investment (Baltagi et al. 2008; Kim, 2009; Tekin-Koru, 2011) that typically occurs between home and host countries with similar skills and factor proportions, but it may have a positive effect on vertical investment, especially when the agreement binds high and low cost economies (Ekholm et al. 2007; Chala and Lee, 2015) or those with significant differences in factor proportions (Levy-Yeyati et al. 2003) and skills (Jang, 2011). In contrast, the impact of regional integration in the "knowledge-capital" model of investment (Carr et al. 2001) is less clear-cut as this involves both horizontal and vertical investment.

While the investment effects of the AfCFTA are therefore likely to differ amongst African countries, there are several channels by which the AfCFTA could enhance intra-African investment. In the first phase, the AfCFTA seeks to liberalize goods and services trade amongst African countries. A positive effect of this liberalization on intra-African trade is likely to foster intra-African investment via the positive effect of such trade on investment. Existing literature has studied the trade-FDI relationship extensively and suggests that there may be four channels by which trade may have a positive effect on investment (Fontagne, 1999).

Reduction of trade costs within the bloc also makes intra-firm trade less costly thereby encouraging greenfield

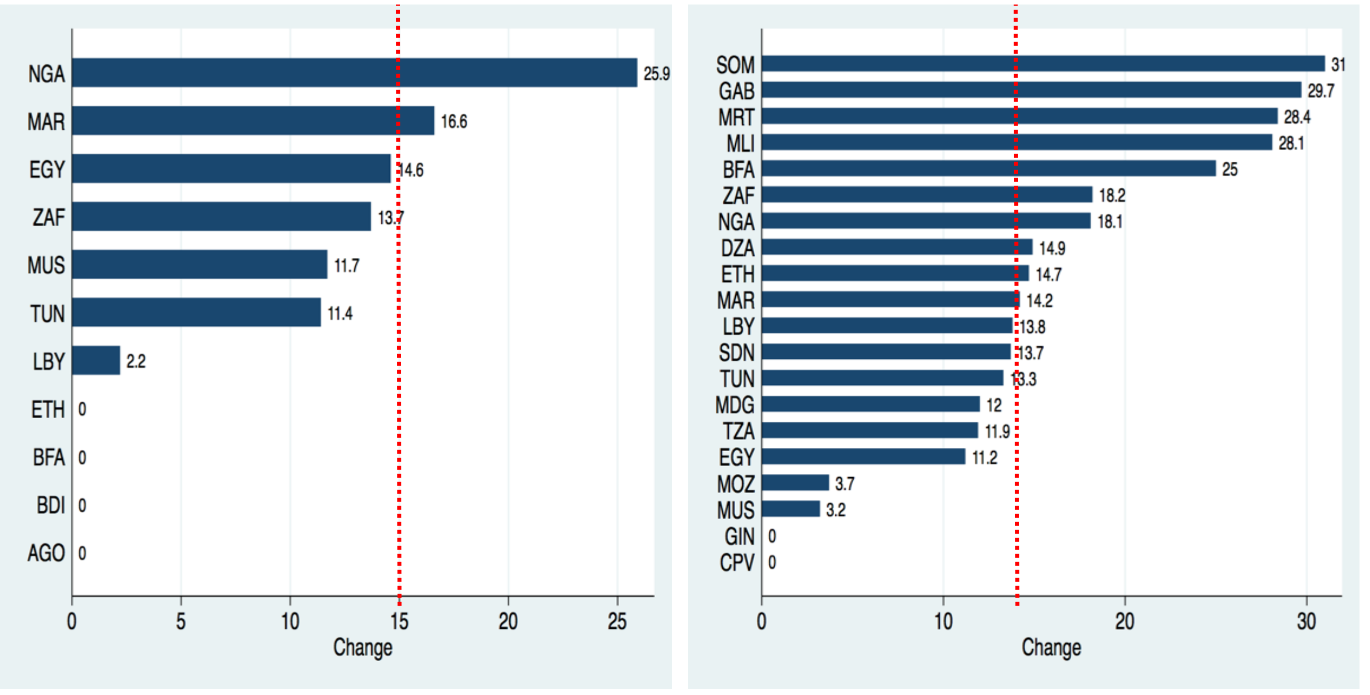
Figure 1: Stock of inward FDI in Africa over time by geographical region (USD bln)



Source: UNCTAD; own calculations

Note: North - Algeria, Egypt, Libya, Morocco, Sudan & Tunisia; Southern - Botswana, Eswatini, Lesotho, Namibia & South Africa; Central - Angola, Cameroon, Central African Republic, Chad, Congo, Congo Dem. Rep., Equatorial Guinea, Gabon & Sao Tome and Principe; East - Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, South Sudan, Uganda, Tanzania, Zambia & Zimbabwe; West - Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Saint Helena, Senegal, Sierra Leone & Togo.

Figure 2: Percentage change in intra-African greenfield investment across source (left) and destination (right) countries in the counterfactual scenario relative to the baseline in the year 2018



Note: The figure shows estimates from conditional GE analysis using the GE PPML estimator. The broken red line denotes the percentage change in total intra-African greenfield investment in the counterfactual scenario (a successfully implemented AfCFTA) relative to the baseline (no AfCFTA) in the year 2018.

investment (Chala and Lee, 2015). This is particularly true in a world of regional and global value chains (GVCs), involving back and forth movement of intermediates between home and host countries. Thus, liberalization under AfCFTA is also likely to spur intra-African trade in intermediates, which may have multiplier effects on intra-African investment.

Another channel for the investment-enhancing effect of the AfCFTA could emanate from deep integration wherein preferential liberalization goes beyond tariff reduction in goods to coverage of trade in services, investment, intellectual property rights (IPRs), standards, government procurement, competition, safeguards and dispute settlement. The second phase of the AfCFTA entails negotiations on competition, IPRs and investment. Provisions on services trade, investment and IPRs in an agreement are more likely to have first-order effects on investment. In fact, a PTA with investment provisions is equivalent to a legal framework with a nested BIT (Buge, 2014). Bilateral contracts providing a legal framework for investment regulation not only reduce risk and uncertainty from the home country's perspective but also serve as a credible signalling device for the protection of foreign investors in host countries. Thus, regulatory cooperation via continent-wide BITs could be an important transmission channel for the investment-enhancing effect of the AfCFTA.

Yet another potential causal link between PTAs and investment involves the domestic political economy dimension. Trade agreements can work as a commitment device (Ethier, 1998; Buthe and Milner, 2008), solving the time-inconsistency problem in policy-making. This lends more certainty and predictability to the system, besides signalling a commitment to institutional reforms and long-term open market policies, which are essential attributes for attracting investment.

Finally, agreements could also lead to improvements in regulatory governance and the investment climate in general, which would again facilitate investment (Globerman and Shapiro, 2002; Busse and Hefeker, 2007).

RESULTS

Conditional GE estimates from counterfactual analysis show that the stock of intra-African greenfield investment in 2018 would have increased by 14 percent from a successful implementation of the AfCFTA in that year relative to the baseline scenario of no agreement, with heterogeneity across both source and destination countries (see Figure 2). Meanwhile, extra-African inward greenfield investment as well as African outward investment into ROW witness declines by 0.34 and 6.0 percent, respectively, in the counterfactual scenario relative to the baseline. These findings suggest that while having a pan-African agreement may not necessarily attract more investment from ROW, the AfCFTA may divert African investment towards the continent.

In contrast, the effect of regulatory cooperation via the BIT variable is found to be negative, which is consistent with the findings in Osnago et al. (2019). The stock of intra-African greenfield investment is found to decline by 5.7 percent in the counterfactual scenario relative to the baseline. This suggests that regulatory cooperation may not be an effective transmission channel for the AfCFTA to foster intra-African investment.

We use the PPML estimator (Silva and Tenreyro, 2006) with time- and sector-varying source and destination fixed effects, and dyadic fixed effects in our empirical analysis, which accounts for sample zeroes in the investment data and heteroskedasticity-related concerns in estimation, besides controlling for unobserved heterogeneity, multilateral resistance and endogeneity-induced biases (Piermartini and Yotov, 2016). The underlying data are phased over time periods (2005, 2010, 2015 and 2018) to allow for adjustment effects and also include data on internal investment (gross fixed capital formation) that makes estimation more theory-consistent (Fally, 2015).

CONTRIBUTION

This paper contributes to five different strands of the existing empirical literature. These include extant work on (i) the determinants of African FDI including descriptive statistical evidence on investment in the continent; (ii) the relationship between preferential trade agreements (PTAs) and FDI; (iii) the relationship between BITs and FDI; (iv) the likely effects of the AfCFTA; and (v) the relationship between trade and FDI.

It contributes by providing an in-depth analysis of both inward and outward African greenfield investment, by source and destination countries within and outside the continent, disaggregated by sectors and over time to compare pre- and post-crisis periods.

To the best of our knowledge, this is also the only study that examines the likely effect of the AfCFTA on both inward and outward African greenfield investment. Extant work on the effects of AfCFTA has studied trade (Obida, 2019), the labour market (Lungu, 2019) and trade facilitation (Magwape, 2018), but not investment. A recent IMF study (Abrego et al. 2019) examines the general equilibrium effects of the AfCFTA but does not focus on investment.

In examining the investment effect of the AfCFTA, the paper also adds to the literature examining the FDI-PTA and FDI-BIT relationships. While most early empirical work on these subjects was for OECD countries, subsequent analysis has also begun to include non-OECD countries (te Velde and Bezemer, 2004; Buge, 2014; Chala and Lee, 2015), though it does not focus on Africa.

In exploring possible transmission channels for the investment-enhancing effect of the AfCFTA, the paper examines the effect of disaggregated bilateral trade, including trade in intermediates, on disaggregated bilateral investment. Unlike existing work on this subject, including for non-OECD countries (Tekin, 2012; Were, 2015), our analysis is based on bilateral sector-level data, which is another empirical contribution.

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