An Analysis of Chinese Foreign Direct Investment in Ethiopia

Hasset Woldu

Cornerstone University

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Professor Degner

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Abstract

In a 1958 lecture series entitled, “Economic Policy: Thoughts for Today and Tomorrow”, Ludwig von Mises discussed the fundamental prerequisites for economic development with an Argentinian audience. The central need in development is the growth of capital investment and if it isn’t sufficiently available domestically, it may become available through foreign direct investment. He also warned against parties that regard foreign investors as “exploiters” and the protectionist policies they use to hinder such investments such as expropriation, high taxation, inflation, protectionism, and privileging labor unions.

This study focuses on the effects of foreign direct investment on economic growth for developing countries. Specifically, it examines China’s growing investments in Sub-Saharan Africa with a focus on Ethiopia. We look to provide data points that describe the degree to which the causes of economic growth have impacted Ethiopia in our empirical section. We utilize a linear regression method to measure the degree to which several factors influence economic growth. The results demonstrate that, among other things, the growth of real GDP in Ethiopia has been positively correlated to Chinese FDI and positive interest rate ratios where rates of return are comparatively large in Ethiopia compared to China’s domestic rates of return. We also find that there is some statistical ambiguity as to whether standard indexes used to gauge economic freedom and stability are a strong influence in the flow of Chinese FDI to Ethiopia. In the end, we see that a higher degree of monetary discipline, and an environment that invites FDI has a positive impact on GDP, just as Mises explained.

Introduction

China’s interest in the African continent market has been growing significantly. In this paper, we will cover some reasons for the growing interest in China’s investment in Africa, particularly in Ethiopia. The following major factors heavily influence China's interaction with Africa in particular. China requires resources to support its modern, expanding economy. Its manufacturing sector's quick expansion has also produced a rise in domestic demand for natural resources, such as oil, gas, and precious metals. Africa has a wealth of these natural resources, including aluminum, copper, and iron.

The second factor is, the people of Africa are considered a potential market for Chinese goods. Although Chinese Growth is primarily dependent on the manufacturing sector, thus it requires a brand-new, reliable consumer market to continue along its rapid developmental path. Thirdly, African producers and other industries had monopolies and protection for many years. African nations' economic reform opened the way to increased commercial activity from other players elsewhere by liberalizing the protected market. Many previously barred from the market, notably Chinese businesses, are now interested in the new markets.

The theoretical basis of foreign direct investment

In a 1958 lecture series entitled, “Economic Policy: Thoughts for Today and Tomorrow”, Ludwig von Mises discussed the fundamental prerequisites for economic development. The central need in development is the growth of capital investment. If it isn’t sufficiently available domestically, it may become available through foreign direct investment. These cross-border transactions in international trade or foreign direct investment have the ability to help a nation's economic condition. Greater economies of scale and more specialized expertise are made possible by expanding markets to include more customers, sellers, innovators, investors, and workers. These developments raise wealth and living standards. Consumers benefit most directly and promptly from trade. On way in which this is evident is through increased imports which offer cheaper, superior, or more diversified goods and services while also fostering competition and innovation in the receiving nation.

The current economic imbalances we see around the world are caused, in part, by variations in capital flows. As a result, differences in the standard of living may be compounded. However, Mises notes that these differentials are not the result of poorer nations possessing personal inferiority or ignorance. “The difference is the supply of capital, the quantity of capital goods available. In other words, the amount of capital invested per unit of the population is greater in the so-called advanced nations than in the developing nations.” (Mises, 1979, 2006).

In order to draw foreign investment, conditions must be favorable for foreign investors. Many nations have adopted what are in fact protectionist policies, such as excessive taxes, expropriation, inflation, protectionism, and protection from competition for labor unions. Such policies have the effect of discouraging international investment. (Mises, 2006)

Ethiopia’s economy grew quickly from 2003 onwards due to its rapidly developing agricultural sector. Ethiopia-China relations also become more cooperative during this time period. China is currently the country's biggest trading partner. Bilateral trade between the two nations has significantly increased, accounting for over one-fifth of Ethiopia’s total imports. Chakrabarty explains, “the growth of Ethiopia’s exports to China is a more recent phenomenon,” Prior to 2005, China was a relatively unimportant export destination for Ethiopia, with a share of just 2.4% in 2004 which rose to 11.1% in 2012. (2016)

Although it is primarily focused on agricultural exports, Ethiopia has attracted significant volumes of Chinese financial flows and foreign direct investment (FDI) for the purposes of infrastructure development. Ethiopia has benefited from China's zero-tariff policy on its agricultural exports, led by sesame seed exports. In exchange for these exports, Ethiopia also imports machinery and manufactured items from China.

Agriculture is still the dominant sector for economic activity in Ethiopia. Nearly 85% of the population is engaged in agricultural production, and it accounts for about 41% of Ethiopia's gross domestic product (GDP) and 90% of its export earnings. Furthermore, the Ethiopian government has taken the position that rapid agricultural growth is a necessity for poverty alleviation and an impetus for high rates of economic growth. Therefore, agriculture is the cornerstone of the "Growth and Transformation Plan," and the country has embraced the strategy of "Agricultural Development Led Industrialization" (Chakrabarty, 2016). With increased agricultural exports to China, the trade relationship between the two countries has had a definitive impact on Ethiopia's development process. More than 1,600 distinct Ethiopian goods are now imported into China with zero tariffs and without quota limitations as the Chinese government has granted duty-free privileges to Ethiopian agricultural imports. (HKTDC Research, 2022)

In conclusion, Trade without the imposition of tariffs or other forms of government intervention promotes foreign direct investment, which in turn contributes to capital accumulation, and eventually, to overall economic growth. On the other hand, tariffs, or taxes on imported goods, hinder economic growth, and benefit special interest groups at the expense of consumers and the non-privileged producers. (Rothbard, 2009)

What is the economic meaning of FDI?

What is the economic meaning of foreign direct investment (FDI)? FDI should be understood as a *process* that residents of one country acquire ownership of assets for the purpose of controlling the production, distribution, or other activities of a firm in another country. Theoretical justifications for FDI are generally derived from conventional theories of international trade, which are predicated on the concept of comparative advantage and variations in factor endowments between states. The comparative advantage that a country or region provides is typically what draws multinational corporations to that country or region. For instance, global corporations might create foreign subsidiaries to benefit from the reduced labor costs or the sizeable market. Traditional theories of international trade, therefore, do provide a basic explanation of FDI. However, the conventional trade theories do not *fully* explain why multinational corporations choose to conduct business abroad as opposed to engaging in alternatives to FDI like exporting to those nations. To explain why firms don't choose to engage in FDI requires further explanation. (Pugel, 2020).

One way that Pugel has suggested to view the distinctions in FDI is to look through the lens of the specific investor approach as well as from the perspective of the host country. Investors sometimes engage in *horizontal* FDI for the purpose of expansion into new markets while producing the same or similar types of goods and services as in the host country. Since product differentiation is a critical element of market structure for horizontal FDI it is undertaken to serve the differing tastes of consumers in other parts of the world. From the perspective of international consumers, this brings the added benefit of market differentiation and variety. On the other hand, *vertical* FDI is used to purchase access to the factors of production within a foreign nation such as raw materials, distribution outlets, or labor. Such an approach provides job growth, and generally, an increase in the productivity of the nation in which the vertical FDI is taking place. In either case, the business footprint of the firm grows, and the standard of living within the recipient nation tends to grow as well, whether through lower-cost imported goods, or through improved revenues/rents to the factors of production.

What are the benefits of FDI to the host country?

There is expanding view in recent years that FDI and growth are positively connected. It is crucial for advancing technology, efficiency, and production, all of which serve to promote economic growth. FDI serves as a conduit in this regard for transferring advanced managerial methods, capital goods, and technology from industrialized to developing economies. Furthermore, with these sorts of investments, a spillover effect can occur when other local firms improve their productivity by emulating some techniques or “recipes” used by a multinational corporation in the local market.

There is then, a new set of advantages that accrue to the recipient nation, through an expanding division of labor and the accompanying employment opportunities. This effect of FDI can be considered both direct and indirect. In countries where capital is scarce and labor is abundant, the creation of employment opportunities is one of the most noticeable impacts. The direct effect is when citizens of the host country get job opportunities in foreign multinational companies. Whereas indirect employment arises when jobs are created in local suppliers because of the investment. The employment effects of FDI are of considerable interest to host developing countries. The quantitative effects of FDI in the host country are found to be larger in the host developing countries. (Pugel, 2020) The other advantage is that international trade and this impact will differ depending on the host country’s motives whether it is efficiency-seeking, market-seeking, resource-seeking, or strategic asset-seeking. In general, gaining maximum benefits from FDI is highly dependent on the host country’s condition.

Foreign direct investment is strongly significant in encouraging domestic investment activity of the country through the inflow of new technologies, market spillover, new managerial skills, and competition with domestic firms. The implication of such outcomes if economic development is a genuine goal, then policymakers must harmonize the country's investment strategies to focus on facilitating those FDI-attracting tools which actually provide the environment where increasing capital inflows may occur. This might be done by securing peace and political stability in the country, by reducing barriers to the the utilization of electricity, transportation, and telecommunication services. Furthermore, the appreciation of domestic currency, reductions in import tariffs, and the general reduction (or better yet, the elimination) of protectionist policies, set developing nations on a course for increased FDI.

What are the benefits of outward foreign direct investment?

The global corporation managing the investment will generate returns because of the efficient and effective pursuit of assets and advantages abroad. These returns can either have a firm-specific nature, benefiting the investing firm, or they can have a more general one, benefiting other businesses or economic actors. Most significantly, if returns reduce some of the needs for development that a home economy has, they have a positive effect on economic development. Due to their very nature, profitable investments result in demonstrable financial rewards for investing companies and their shareholders when they make money abroad or produce other revenue sources through their FDI activities.

Is Chinese FDI a threat to local producers?

China’s interest in investing in the Sub-Saharan African Countries has been escalating and what makes Chinese FDI in Ethiopia unique is that almost 60% of these investments are concentrated in the manufacturing sector and infrastructural development. China’s growing involvement could raise some concerns for local producers. This research has shown the broader perspective of FDI in Ethiopia coming from China.

Chinese foreign direct investment (FDI) can pose a threat to local producers in the host country by creating competition for limited resources, disrupting the local market, and potentially undermining local cultural norms. The influx of cheap Chinese goods can drive local producers out of business, and the migration of Chinese workers can lead to increased unemployment for local workers. However, the long-run impact of FDI shows “persistently positive effects after 6-12 years” with respect to aggregate growth (Riccardo and Limodio, 2021).

In order for a host country to benefit from foreign direct investment, Implement policies that promote local job creation and technology transfer, monitor the FDI to ensure it adheres to labor, environmental and other regulations, encourage partnerships between local and foreign firms, to foster knowledge and technology transfer, Foster a business environment that is attractive to foreign investors, such as good governance, a stable political climate, and a well-functioning legal system. Ultimately, the goal should be to balance the benefits of FDI with the needs of the local economy, so that the host country can maximize the benefits of foreign investment while minimizing its negative impacts.

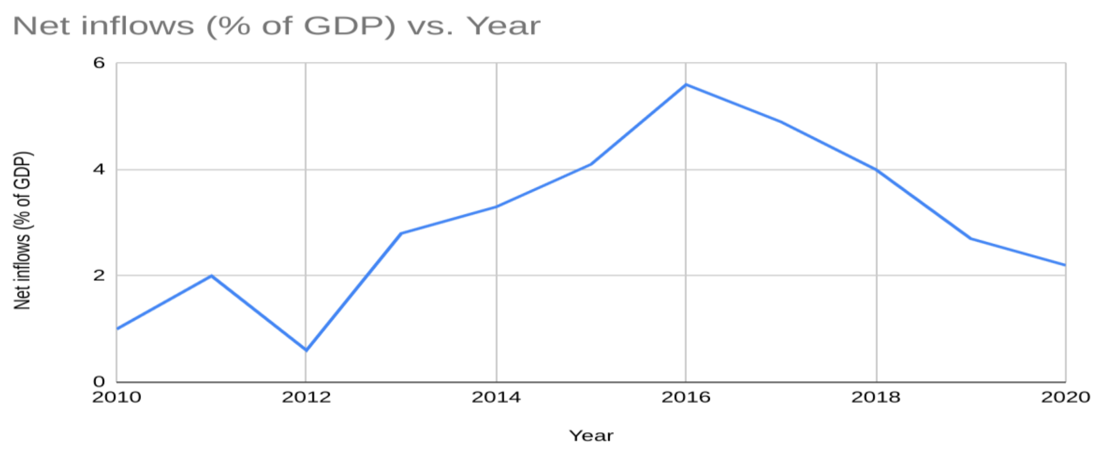
What is the nature of Chinese FDI in Ethiopia?

To encourage, promote and expand private investment in the country; the Ethiopian government has set out some private sector development initiatives that highlight the importance of competitiveness as a key to success for sustained economic development in the country. Some of the important factors mentioned as a basis for competitiveness include an overall goal of creating an environment that is conducive to FDI. Such a strategic goal requires macroeconomic stability, sound monetary policy and regulatory framework for the private investment sector, and strong institutions that run and support market activity. The liberalization of trade and FDI regimes are assumed to have a positive influence on the inflow of, and the empirical reality of trade between China and Ethiopia provide the specific contours of just how effective this approach has been. In fact, it is clear that Chinese FDI towards Ethiopia has grown since the two nations have agreed to facilitate freer trade and investment between themselves. This trend began with unilateral decisions made by Ethiopian policy makers in 1991. (Riccardo and Limodio, 2021)

One measure of FDI flows into Ethiopia from China is to measure them with respect to overall Ethiopian GDP. Figure 1 demonstrates the net inflows of FDI, in ten years period. From this graph, we can tell that inflows of FDI fluctuate throughout the ten-year period. The highpoint of Chinese FDI as a percentage of GDP reached a peak in 2016, one year after a considerable decrease in Chinese interest rates from 5.75% to 4.25%. This aggressive cut in rates served to lower rates of return in China, and directed investment to the relatively higher returns found in Ethiopian investments.[1]

[1] Source: https://tradingeconomics.com/china/interest-rate

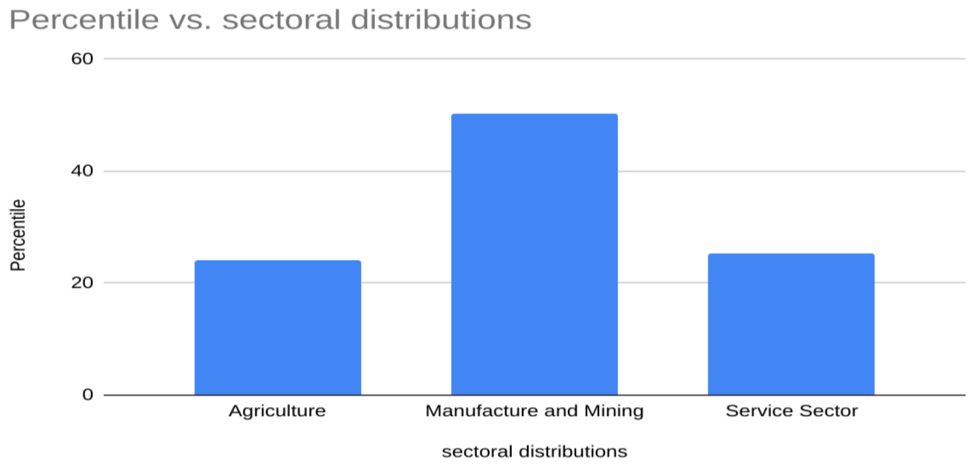
Figure 1: Net Inflows of Chinese FDI into Ethiopia 2010 - 2020[2]



Further investigation into the nature of Chinese investment in Ethiopia shows that foreign investors are encouraged to invest in all economic sectors except those currently reserved for domestic private and state investment, with the domestic private investor category including foreign nationals who are permanent residents in Ethiopia. (Gizaw, 2015) However, they prioritize areas of investment open for private investors in the manufacturing, agricultural, mining, tourism, and health sectors respectively. Figure 2 demonstrates that the agriculture sector accounted for about 24 percent of total FDI inflows to Ethiopia in 2013. The manufacturing and mining sector together accounted for around 50.22 percent while the service sector accounted for about around 25.36.

[2] Source: Statista.com

Figure 2: Sectoral Distribution of Chinese FDI in Ethiopia - 2013[3]



Empirical Findings

Dependent Variables

In running several regressions using R-Studio, we utilize both China's foreign direct investment in Ethiopia (CFDIE) as the dependent variable, and in other models, the Ethiopian real GDP (in millions, EGDPM) is utilized. These measurements occurred for the years of 2014–2020.[4]

Independent Variables

1. Peace and Stability Index (PSI)

The Peace and Stability Index (PSI) of a given country tends to have a positive relationship to Foreign Direct Investment. A higher value in this variable indicates a stable legal and regulatory

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[3] Source: Statista.com

[4] The reason for the limited data set is that data for the interest rates that prevailed domestically in China are only available from 2014 onward.

environment and are considered to be favorable conditions to attract foreign investors. On the other hand, a lower score tends to indicate political upheaval that would discourage foreign direct investment (FDI).

2. Freedom Index (FI)

The freedom index or openness to trade is another factor that impacts the foreign direct investment of a country. According to Fraser Institute, the basics of economic freedom are personal choice, voluntary exchange coordinated by markets, and freedom to enter and compete in the markets. These foundations have been considered when they determine the freedom index of a country. The relationship between FDI inflows and the trade openness of the host country is subject to primarily the motives of FDI in the recipient country.[5]

3. Ethiopia / China Interest Rate Ratio (ECRATIO)

This variable was created using data that indicated the annual average domestic interest rates in Ethiopia and China. The standard economic reasoning is that investors are searching for relatively higher returns when deciding which countries might attract their investments, all else equal. This variable might also be understood as a comparison of monetary discipline by comparing the behaviors of each nation's central bank. We would expect that a measurement that is greater than one would indicate that investors would fine higher rates of return in Ethiopia, and thus tend to make more FDI within its borders.[6]

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[5] Source: https://www.fraserinstitute.org/economic-freedom/dataset?geozone=world&page=dataset&min-year=2&max-year=0&filter=0

[6] Source: https://tradingeconomics.com/china/interest-rate. We take the prevailing interest rate in Ethiopia over a year's time and divide that rate by the same metric in China.

Regression Models and Results

This study employed the linear regression modeling in R-Studio to assess the relationship between the exchange rate and the variables described above. In the first instance (Eq. 1) we sought to discover the ways in which all other variables impacted Ethiopian GDP.

Eq. 1: *EGDPM ~ CFDIM + ECRATIO + FI + PSI*

When this regression rendered no statistically significant variables, we began to isolate specific variables that are in accordance with Mises' discussion on FDI and economic growth. Accordingly, we tested Eq. 2 and achieved statistical significance (p-value = 0.0234) with an adjusted R^2 of .6102 (See Table 1).

Table 1: Eq. 1 Regression Results Explaining Chinese Foreign Direct Investment in Ethiopia

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	84745.4	118789.4	0.713	0.55
CFDIM	-106.9	117.4	-0.911	0.459
ECRATIO	69564.2	41616.5	1.672	0.237
FI	6910.4	10622.5	0.651	0.582
PSI	-44405.3	67498.9	-0.658	0.578

Adjusted R^2: 0.7924

Eq. 2: EGDPM ~ CFDIM

Adding to this model, to see if the R^2 might increase while maintaining statistical significance for additional variables, we tested Eq. 3 and achieved an R^2 of .8665, but lost the statistical significance of CFDIM, while it was present for ECRATIO (See Table 2).

Table 2: Eq. 2 Regression Results Explaining Chinese Foreign Direct Investment in Ethiopia

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	48160.35	9462.8	5.089	0.0038
CFDIM	112.88	35.01	3.224	0.0234

Adjusted R^2: 0.6102

Eq. 3: EGDPM ~ CFDIM + ECRATIO

Another variable is now included with Eq. 3, which produces a higher adjusted R^2 of 0.8665, indicating a model that is highly correlated, yet only the ECRATIO possesses statistical significance as detailed in Table 3.

Table 3: Eq. 3 Regression Results Explaining Chinese Foreign Direct Investment in Ethiopia

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	30341.37	7784.81	3.898	0.0176
CFDIM	-32.69	49.17	-0.665	0.5426

Adjusted R^2: 0.8665

After observing how the Ethiopian GDP was affected by other factors from 2014 – 2020, we turned our attention to see how the FDI from China was impacted by other variables. After testing various combinations of the variables that have already been discussed, we produced a model that had an adjusted R^2 of 0.9052 with Eq. 4.

Eq. 4 CFDIM ~ ECRATIO + FI + PSI

Eq. 4 yielded the following results in the regression model (See Table 4):

Table 4: Eq. 4 Regression Results Explaining Chinese Foreign Direct Investment in Ethiopia

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	628.98	457.76	1.374	0.2631
ECRATIO	340.71	56.66	6.013	0.00921
FI	57.65	40.28	1.431	0.24773
PSI	-465.3	195.11	-2.385	0.0972

Adjusted R^2: 0.9052

Interpreting Empirical Results

Whenever economists interpret regression results from data, we must remember that we are dealing with a specific context and a specific set of actions by real world individuals. As such, we can’t create economic theory (or alter it) due to regression results. What we can observe is that in the particular situation we've examined that it appears that certain variables played a greater or lesser factor in decisions that led to more or less foreign direct investment in Ethiopia by Chinese investors. Similarly, we see that some factors played a greater or lesser role in driving Ethiopian GDP during this particular six-year timeframe.

The regression results for the above data sets demonstrate a picture where Chinese FDI does indeed seem to have played a role in boosting Ethiopian GDP, but what is even more clear is that the conditions within Ethiopia itself were more significantly responsible for attracting Chinese FDI, as indicated by Eq. 4. Indeed, relatively high interest rates (indicating relatively conservative monetary policy by the Ethiopian Central Bank) and institutional factors that improved the amount of personal liberty, along with the economic, legal, and political stability of the nation, that apparently has played a role in attracting greater investment from Chinese businesses. This is not to say that other variables aren't a factor, but the factors that Mises indicated would tend to attract FDI certainly seem to have had their impact in this case, while there are without a doubt other factors to give consideration to in the future.

Conclusion

This study attempts to analyze the causes of change in Chinese foreign direct investment in Ethiopia. We've selected independent variables due to the theoretical arguments made by Mises regarding the attraction of foreign investment. In selecting the Freedom Index, the Peace, and Stability Index, the relative rates of return between Ethiopia and China, and Ethiopia's GDP, it appears that China's FDI increases are indeed sensitive to the factors that Mises described. In the context that we observed – Chinese FDI in Ethiopia from 2014 – 2020 - the Adjusted R-squared results suggested that those investments can largely be explained by variables that account for liberty, monetary discipline, and the rule of law. Future research may be conducted in observing the impact that these same variables have in attracting investment to other African nations and can serve as a roadmap for policymakers who wish to establish conditions where their nations might be in a better position to attract FDI, increase their capital stock, and boost productivity, all with an eye on poverty alleviation and economic development.

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