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Determinants of chinese outward foreign direct investments in africa; sadc and non-sadc countries

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ABSTRACT: As globalization has led to rapid increase in foreign direct investment, China's outward foreign direct investments has also been growing rapidly in the global economy. Recently, there have been rapid growing economic activities between China and Africa. Many African countries are trying their best to find ways to attract more Chinese foreign direct investment (OFDI). The performance of Southern Africa Developing Community (SADC) in attracting foreign direct investment if compared with other regions is poor. This paper aimed at identifying and analyzing the determinants of Chinese OFDI in Africa particularly in SADC and making a comparison between SADC and non-SADC countries. Using panel data analysis for a sample of 21 African countries over the period 2005 to 2012 the study showed that the main determinants identified and most significant in SADC were GDP per Capita, imports, openness to FDI, telephone lines *(per 100 people)* and being a SADC member.

Keywords: Determinants; China's Outward Foreign Direct Investment (OFDI); SADC; Africa..

1.0 INTRODUCTION

Foreign Direct Investment (FDI) flow is one of the main dynamics of globalization phenomenon and has been regarded in the last decades as an effective channel to transfer technology and foster growth in developing countries. Globalization has led to rapid increase in foreign direct investment and this has not spared China in increasing its FDI.

Over the last decade China become one of the largest recipient of FDI and increased its outward FDI dramatically. According to the United Nations, China has become a significant source of global FDI outflows, which rose from US$2.7 billion in 2002 to US$84.2 billion in 2012. As of the end of 2013, China's outward FDI flow was US$101 billion and accumulated outward FDI stock volume stood at US$613.58 billion (UNCTAD, 2014) see figure 1. According to statistics from the United Nations Conference on Trade and Investment (UNCTAD), China again ranked third behind Japan and the US in terms of total outward investment flows in 2013 (up from sixth in 2011 to third in 2012).

Figure 1.China's OFDI: Stock and flow, 1990-2013

S*ource: UNCTAD, FDI Statistics and Statistical Bulletin of China's Outward Foreign Direct Investment 2012*

Looking at regional distribution of Chinese FDI, Asia has been a number one recipient in attracting more Chinese outward FDI followed by Europe, Latin America, North America, and Africa comes on the sixth position and Oceania comes last. The distribution of Chinese outward FDI in 2012 was as is shown in figure 2 with Asia receiving 73.8% of Chinese outward FDI. In 2013 again Asia attracted over 70 percent of China's outward FDI.

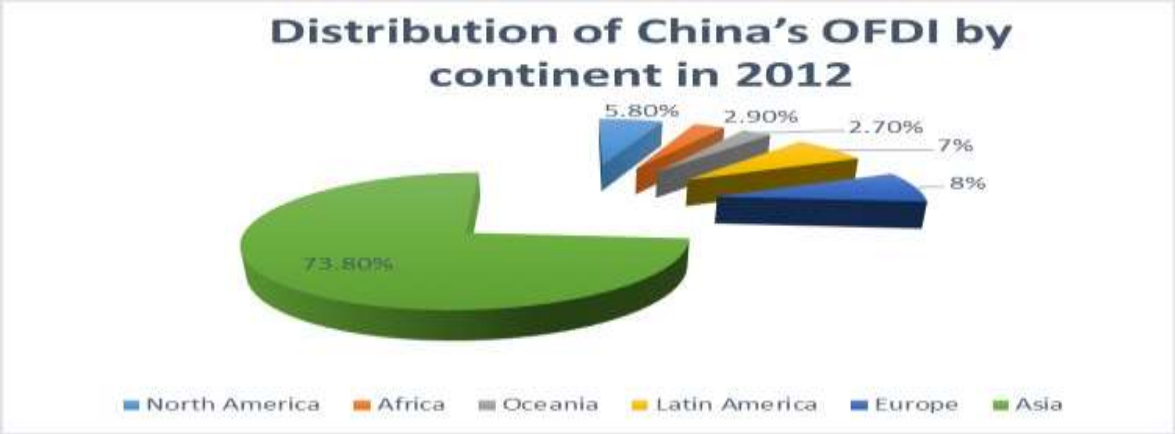

Figure 2.Distribution of China's OFDI by continent in 2012

Source: Statistical Bulletin of China's Outward Foreign Direct Investment 2012 and own calculations.

China's outward FDI in Africa has been accelerating rapidly, increasing from US$1 billion in 2004 to US$24.5 billion in 2013. Its distribution by sector in 2013, a large amount was invested in extractive industries such as mining and oil extraction, as shown in figure 3.

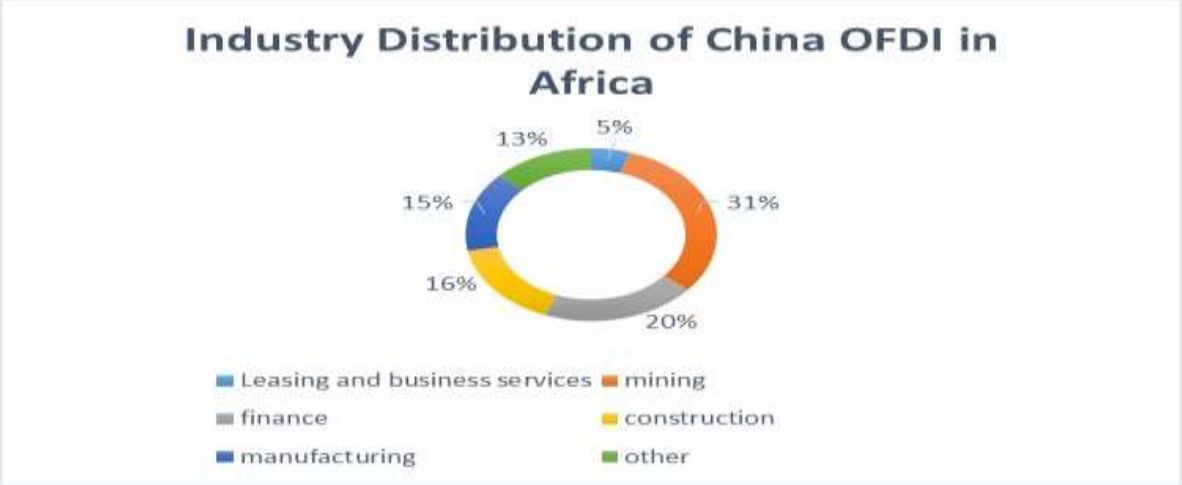

Figure 3.Industry distribution of China's outward FDI in Africa in 2013

Source: MOFCOM statistics

1.1. China – Africa relationship

The relationship between Africa and China; very little is known about ancient relations between China and the African continent, however, there is some evidence of early trade connections that existed. One of these connections was the formation of the Forum on China-Africa Cooperation (FOCAC) which was established in October 2000 as an official opportunity to make the relationship stronger.

The FOCAC has been working towards the establishment of a new global political and economic order between China and Africa, aiming at enhancing China-Africa economic cooperation. Some of the plans of FOCAC that were agreed upon in the first meeting in 2000 were to boost Sino-African trade and investments; cancel African countries debts to China; increase development aid to Africa; and encourage Chinese companies to invest in Africa.

Africa still lacks policies aiming to ensure that Chinese investments in the continent benefit Africans. The trade imbalances between China and Africa are enormous. This trend in Sino-African trade benefits China, which enters African markets to sell its manufactured goods and buy primary products with little added value for Africa. While there is an important presence of Chinese companies State Owned Enterprises (SOEs) and private enterprise operating in Africa, China remains untapped for African companies, with the exception of a few South African companies.

This research intended to focus on China as a source of FDI to Africa knowing that China is the world's fastest-growing economy, with real annual Gross Domestic Product (GDP) growth averaging 10% through 2013 annually. In recent years, China has emerged as one of the major global economic and trade power. It is currently the world's largest economy followed by the United States of America, China is also the largest merchandise exporter, second-largest merchandise importer, second-largest destination of FDI, largest manufacturer and largest holder of foreign exchange reserves. This has been the case since China decided to open up to foreign trade and investment and implement free market reforms in 1979. Prior to the initiation of economic reforms and trade liberalization, China maintained policies that kept the economy very poor, stagnant, centrally controlled, vastly inefficient, and relatively isolated from the global economy (Morrison, 2014). However the true expansion of investments started with the ‒go global‖ policy, implemented in

1999. Apart from that China has also served as a development model for Africa and an alternative source of trade and finance from Africa's traditional development partners.

The impact of China on African economies has been diverse, partly depending on the sector composition of each country's production. Overall, China's increased engagement with Africa has potential to generate important gains for African economies. This has resulted in increased attention and debate for policy makers in Africa on the role of FDI in development. Many African economies are trying their best to attract more Chinese OFDI. Therefore, it's imperative that regional groups like Southern Africa Development Community (SADC) countries[1] attract Chinese FDI to ensure regional growth and economic prosperity of individual economies. SADC is one of the Regional Economic Communities (RECs) as well as Regional Trade Agreements (RTAs).

RECs stands to benefit member countries in terms of transnational free trade regions, single customs unions, single markets, single currencies and other forms of political and economic integration. This is the case because economic cooperation among countries with shared borders help create larger markets for national producers and consumers and allow economies to scale by reducing barriers to trade, capital and labor. Cross-border cooperation also facilitates the development of regional infrastructure networks and permits the efficient management of cross-border spillovers. Regional cooperation is particularly important for land-locked countries, since they have neighbors on all sides with whom they must cooperate not only to increase integration with the region but also to permit integration with world-wide markets. Some of SADC countries are landlocked countries as well. African RECs lacks coherent policies on how to engage with external actors. Having a coordinated China policy, RECs would effectively foster regional integration through increased trade capacity and infrastructure development. Looking at China-SADC relation, there are many strategic bi-lateral relationships established between China and Southern Africa especially on Trade, however, there is no official SADC strategy policy on China, but then mechanisms have been put in place to develop a China policy (Centre for Chinese studies, 2014). Regional Trade Agreements (RTAs) on the other hand influences the level of foreign direct investments particularly in developing countries. Through several existing channels RTAs influences the level of foreign direct investment. These can be categorized into investment rules, trade rules and other initiatives (e.g. Blomström and Kokko, 1997; Dunning, 1997). The argument in this research is to see whether being a SADC member leads to having different determinants from non-SADC members.

Chinese Foreign direct investments have over the years proved integral in shaping global development. Theoretically, there is a positive relationship between average income and FDI per capita, a pattern that holds for the world as a whole. However, for most African economies belonging to the SADC, the situation is different. SADC region is characterized by low per capita FDI inflows averaging $37 per year, this is roughly 18% of the average for all other countries which is US$202.8 and 58% of the average for countries with a similar income with SADC region countries, for which

1 SADC COUNTRIES: Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe,

FDI inflows per capita average 63.2 dollars2. Apparently, huge differences in FDI per capita (in 2000 U.S. prices) within the SADC region exists. They range from single digits in countries like Malawi, Zimbabwe, Madagascar, Democratic Republic of Congo, and Tanzania to 10 to 30 dollars for Mozambique, Zambia, Mauritius, and Swaziland, 50 to 100 dollars in Lesotho, South Africa, and Angola, and to 167 dollars in Botswana (World Bank, 2013). Thus unequal distribution of income, wealth, and opportunities, low average per capita income growth rates have all contributed to the relative unattractiveness of the SADC as a destination for investments, no wonder SADC region countries have been encountering obstacles in achieving greater investment levels (Lederman, D. and Xu L.C. 2010).

Against this background, the paper sought analyze the determinants of Chinese OFDI in the SADC region. The findings will provide policy direction on how best SADC can sustainably attract Chinese FDI that propels the regions much desired economic growth. The overall objective of the study was to analyze the determinants of Chinese OFDI in SADC and non-SADC countries. Specifically the paper was to identify the key determinants of Chinese OFDI to SADC and non-SADC countries and make a comparison of the determinants between SADC region and non-SADC region countries.
The rest of the paper is divided as follows: section two gives an overview of the literature reviewed. The third section highlights research methodology of this study where the empirical theoretical model is presented. The fourth section reports the empirical results and discussion. Finally, fifth section concludes and suggestions are made.

2. LITERATURE REVIEW

2.1 Types and Theories of FDI

As described by Dunning (1993) there are three types of FDI, these are market seeking FDI which aims at serving local and regional markets, resource-seeking FDI aims at obtaining resources which are not locally found in the home country, such as natural resources, raw materials and the efficiency-seeking FDI, which aims at searching for low cost locations for operations i.e. low-cost labor. Economists broadly classify FDI theories into two categories; macro-level and micro-level FDI theories. The macro-level FDI theories give the macroeconomic factors that determine the FDI and micro-level theories discuss the motivation of FDI associated with the firm level.

Under macro level there are capital market theory(FDI is determined by interest rates), Dynamic macroeconomic theory (investments depends on the changes in the macroeconomic environment for example changes in gross domestic product, domestic investment, real exchange rate, productivity and openness), FDI theories based on exchange rates (explain how FDIs flow affects the exchange rates), FDI theories based on economic geography which focuses on countries and explains why internationally successful industries emerge in particular countries, gravity approach to FDI (explains that if two countries are very close in terms of geography, economically, and culturally, then the FDI flows between the countries is the highest, and FDI theories based on institutional analysis which

2 Similar income countries" are economies with less than $4,600 GDP per capita.

explores the importance of institutional framework on the flows of FDI. The theory further explains that political stability is the key factor of a healthy institutional framework.

The Micro level FDI theories explains why Multinational Corporations (MNCs) prefer opening subsidiaries abroad rather than exporting or licensing their products, how MNCs choose their investment locations and why they invest where they do (Woldemeskel, 2008). At the micro-level, there are theories like existence of firm specific advantages developed by Hymer (1976) and it states that firms invests abroad because of certain firm specific advantages such as, access to raw materials, economies of scale, intangible assets such as trade names, patents, superior management, low transaction costs etc. Theory of internalization by Buckley and Casson (1976) and Hennart (1982) states that due to market imperfections, firms seek to make use of their monopolistic advantage themselves. Buckley and Casson (1976) propose that firms can defeat the market imperfections by internalizing their own markets. Internalization involves a vertical-integration by bringing new operations and activities under the governance of the firm. The other micro level FDI theory is eclectic theory.

Dunning 1977&1993 proposed an eclectic paradigm framework which is used to explain why investors invest in foreign countries. In his theory he also included the internalization theory. The framework says that investors invest abroad to look for three types of advantages: Ownership (O), Location (L), and Internalization (I) advantages; therefore it is called the OLI framework. Ownership advantage, investors need to gain property rights or patents, expertise so that they compete on the market regardless of being foreign firms. Location advantages make the chosen country an attractive site for FDI. The location advantages may arise from differences in country‘s quantitative and qualitative factors of production natural endowments, political advantages and government regulations that affect FDI flows, transport costs, telecommunications, macroeconomic stability, and cultural factors. Internalization advantages arise from exploiting imperfections in external markets, including reduction of uncertainty and transaction costs in order to generate knowledge more efficiently as well as the reduction of state-generated imperfections such as tariffs, foreign exchange controls, and subsidies. This traditional FDI theory is used to explain foreign investment from the perspective of a developed economy; therefore in the case of emerging economies such as in China, there is a need of more specialized applications of the theory. Even though this is the case, this theory would be relevant in one way or the other in explaining the determinants of Chinese outward FDI in SADC and non-SADC countries.

2.2. The Determinants of Chinese outward FDI

Review of determinants of FDI from literature and theory and how these determinants impact on distribution of Chinese Outwards FDI.

2.2.1 Market Seeking FDI

Market size of the host countries is generally recognized as a significant determinant of FDI flows. An increase in markets size increases opportunities for the efficient utilization of resources and the exploitation of economies of scale and scope through FDI; this entails that as the market-size grows to some critical value, FDI will start to increase thereafter with its further expansion (UNCTAD,

1998, Chakrabarti, 2001). Tsai (1994) and Asiedu (2002) argue that a higher GDP per capita implies better prospects for FDI in the host country. (Cuyvers, L. et al, 2011) wrote that some factors that are taken into account when investors consider locating in a foreign country are larger market size, increased market growth, higher degree of development, and higher per-capita GDP growth. We therefore included China‘s host countries market as a variable in our model and expect a positive relationship.

2.2.2. Resource Seeking FDI

Countries with natural resources endowment tend to attract resource-seeking FDI than those without. Companies establish foreign subsidiaries to exploit natural resources in order to acquire and secure a continual supply of raw materials for their own industrial operations (Deng, 2004). The growing strategic importance of natural resources owing to an increased demand and increased prices in the domestic market motivated emerging economies to intensify efforts to acquire oil assets and invest in mining (UNCTAD, 2007). For instance Chinese firms invest overseas to gain security over access to raw materials. Despite that China is well endowed with its own natural resources, but its per capita availability of resources is very low, especially iron ore, aluminum, copper, petroleum, timber, and fish which are in such growing demand (Deng, 2004). With the increased demand of natural resources in China and the growing economy, the Chinese government uses Outward FDI to ensure the supply of domestically scarce resources (Zhan, 1995). Hence host country‘s natural resource was included in our variables and a positive relationship expected.

2.2.3 Political risk

Grosse & Behrman, 1992, defined country risk as the probability that country-specific, governmental events or measures adversely alter the perceived value of the international firm. When investors in the home country decide to invest in a particular host country, they normally compare the economic, political and institutional factors between the home and potential host countries (Cuyvers, et al, 2011). High political risk is generally associated with low values of FDI inflow, (Chakrabarti, 2001). FDI flows are greatest to countries that have less political risk and better physical infrastructure Clarke and Logan (2008). Hence host country‘s political risk was added to our model and a negative relationship was expected.

2.2.4 Host country inflation

Buckley et al., 2007 described inflation as being used as an indicator of macroeconomic instability. A host country‘s economic instability can be a major deterrent to FDI inflow. Low inflation is seen as a sign of internal economic stability in the host country. High inflation indicates the inability of the government to balance its budget and the failure of the central bank to conduct appropriate monetary policy. Unstable and unpredictable inflation rates in host country discourage market seeking FDI by creating uncertainty and in price setting and profit expectations. High rates of inflation may lead to domestic currency devaluation, which may lead to reduction in local currency for market seeking inward investing firms. Therefore host country‘s inflation rate became one of our variables and negative relationship was expected between host country inflation and Chinese outward FDI.

2.2.5 Imports and Exports

Imports and exports express trade relationship between home and host country. There are links between international trade and FDI, particularly for resource seeking and market-seeking FDI United Nations (1993). To enter into a foreign market firms can use alternative modes of entry for example trade or foreign production facilities through FDI. Therefore in our model we included Chinese imports from host county and Chinese exports to the host country and in both scenarios a positive relationship was expected

2.2.6 Geographical distance from China

Geographic distance is regarded as an important determinant of the location choice of international production since market accessibility is one of the main motivations for firms to invest abroad (Wei & Liu, 2001). Proximity to the home country is empirically an important factor for explaining the volume of trade flows between countries. The gravity model predicts that the closer the country is to the home country, the more trade flows between the two countries (Kinoshita & Campos, 2002). Geographic proximity affects FDI by reducing informational and managerial uncertainty, lowering transportation and monitoring costs and allowing MNEs to be less exposed to risks (Wei, 2004). The flow of FDI is predicted to be greatest in to the nearby countries. Hence distance from China to the host country was included in our model and we expected a negative relationship.

2.2.7 Openness to FDI

The degree of openness of a host country to international investors determines attractiveness of FDI. Therefore the higher the degree of openness of a country to international investors, the more attractive it is likely to be as a destination for FDI (Chakrabarti, 2001). A positive relationship between Chinese outward FDI and host countries' openness was expected in this study, hence we included openness of the host country in our model.

2.2.8 Infrastructure

According to ODI (1997), infrastructure range from roads, ports, railways, telecommunication systems to institutional development. Poor infrastructure can be seen, however, as both an obstacle and an opportunity for foreign investment. For the majority of low-income countries, it is frequently quoted as one of the major constraints. Nevertheless, foreign investors also point to the potential for attracting important FDI if host governments allow more substantial foreign participation in the infrastructure sector. Good infrastructure is a necessary condition for foreign investors to operate successfully. Therefore the use of the availability of main telephone lines is necessary to facilitate communication between the home and host countries. A positive relationship is expected between Chinese outward FDI and host countries‘ telephone line, hence, included in our model.

3.0. THE MATERIALS, MODEL AND ANTICIPATED RESULTS

3.1. Data

The study utilized secondary data. Panel Data was used in this study. Data were from members of SADC and non-SADC countries. A total of twenty one (21) countries were purposively sampled over a period of 8 years 2005 to 2012 making one hundred sixty five (165) observations in total. These countries were chosen depending on the availability of data. From SADC region, data were from 11 countries which were selected purposively. This is a representative sample of the total

number of SADC region countries. From non-SADC countries, data were from 10 countries. We included non-SADC countries to be the control.

Table 1: Countries under study

SADC COUNTRIES	Non-SADC
Angola	Algeria
Botswana	Cameroon
Madagascar	Egypt
Malawi	Ethiopia
Mauritius	Ghana
Mozambique	Guinea
Namibia	Kenya
South Africa	Morocco
Tanzania	Nigeria
Zambia	Togo
Zimbabwe	

3.2. Model

The Econometric Model we used in this research was adapted from Buckley et al. 2007, who investigated the determinants of Chinese outward foreign direct investment: it is a log-linear model. We converted some data into natural logarithms because only linear relationships were being expected.

$$LFDI = \alpha+\beta_1 LGDPPP+\beta_2 ORE+\beta_3 POLI+\beta_4 INF+\beta_5 LEXP+\beta_6 LIMP+\beta_7 DIS+\beta_8 OPEN+\beta_9 TEL +\beta_9 SADC+\varepsilon$$

Table 2.The Determinants of Chinese OFDI in SADC and non-SADC countries

Hypotheses and number	*Proxy*	*Expected sign*	*Data Source*
FDI(dependent variable)	Annual outflow of Chinese FDI		UNCTAD, Statistical Bulletin of China's FDI.
Host Market characteristics (H1)	LGDPPP: Host country GDP per capita	+	World Bank Development Indicator
Natural Resource endowment (H2)	ORE: the ratio of ore and metal exports to merchandize exports of host country	+	World Bank Development Indicator
Political risk (H3)	POLI: Host country's political rating(Higher Values indicate greater stability)	+	International country risk guide & Worldwide Governance indicators
Host Country Inflation (H4)	INF=Host country annual inflation	-	World Bank Development Indicator
Exports (H5)	LEXP: China's exports to the host country	+	UN COMTRADE (Trade Maps)
Imports (H6)	LIMP: China‘s imports from Host Country	+	UN COMTRADE (Trade Maps)
Geographical distance from China (H7)	DIS: Geographical distance between host and home country	-	http://www.geobytes.com
Openness to FDI (H8)	LOPEN: Ratio of inward FDI flow to host GDP	+	UNCTAD FDI database
Telephone line (per 100 people) (H9)	TEL: Fixed telephone lines per 100 people of the host country (Infrastructure)	+	World Bank Development Indicators
SADC	dummy variable taking the value 1 if FDI source is China and FDI recipient is one of the SADC region countries, and 0 (Non-SADC) otherwise	+/-	This research

Our model was estimated using both random effects (RE) generalized least squares (GLS) and fixed effects model (FE). After the estimation of the model, we performed a hausman test to decide between RE and FE, the null hypothesis was that the preferred model is random effects versus the alternative the fixed effects (see Green, 2008, chapter 9). It basically tests whether the unique errors (ui) are correlated with the regressors, the null hypothesis is they are not. The process involves running a fixed effects model and saving the estimates, then running a random model and saving the estimates, then perform the test.

4.0 RESULTS AND DISCUSSION

4.1 Results

Table 3 presents results of Hausman test. Since prob>chi2 0.9024 >0.05 (insignificant), RE was found more appropriate for our study.

From the correlation matrix between Chinese outward FDI and the variables that we used in the model table 4. The highest positive correlation was 0.15 which is between OFDI and inflation, the lowest positive correlation (0.04) is between outward FDI and distance. Highest negative correlation (-0.11) was on outward FDI and imports and the lowest was between OFDI and GDP per capita (-0.01).

Table 3: Hausman Fixed-Random test

	Coefficients (b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
LGDPPP	.2661655	.1863576	.0798079	.4922472
orees	-.000725	-.0018272	.0011022	.001795
polii	-.0129438	.0042388	-.0171826	.0166765
inflationn	.0027603	.0023181	.0004422	.0008515
LEXP	.0570446	.0024096	.054635	.214165
LIMP	-.282061	-.096658	-.185403	.1337878
openness	.4104542	.3173021	.0931521	.0868525
telephone	-.0266556	-.0264296	-.000226	.0843946

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(8) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 3.46
Prob>chi2 = 0.9024

Table 4: Correlation Matrix

	OFDI	GDPP	Resource	Political	Inflation	Exports	Imports	Distance	Openness	Tel.Lines	SADC
OFDI	1.0000										
GDPP	-0.0119	1.0000									
Resource	-0.1039	-0.1519	1.0000								
Political	-0.0328	0.5129	-0.2713	1.0000							
Inflation	-0.1489	0.1743	-0.0715	0.1453	1.0000						
Exports	-0.0828	0.3517	-0.0785	0.0376	-0.0072	1.0000					
Imports	0.1060	0.3996	0.1344	0.1607	0.0595	-0.5455	1.0000				
Distance	0.0440	0.0745	0.0469	0.1655	0.1137	-0.0276	0.2240	1.0000			
Openness	-0.0867	0.0088	0.0869	-0.0862	-0.0750	0.1108	-0.0593	-0.0351	1.0000		
Tel.Lines	-0.0386	0.7118	-0.1192	0.3350	0.1709	-0.1388	0.0000	-0.3613	0.0632	1.0000	
SADC	-0.1273	0.3133	-0.1671	0.3614	-0.1234	-0.1818	0.2474	-0.1929	0.2017	0.1372	1.0000

Table 5 presents the main findings of the study. Most of the variables included in the model are those of China‘s bilateral partners. The results shows both random effects (RE) and fixed effects (FE) results. Since RE indicates high values of significant than FE, hence only results from RE will be discussed. In the first regression of the full sample, a relationship is found between Chinese outward

FDI and GDP per capita, imports from host country to China, degree of openness in host country, telephone lines (*per 100 people)* and dummy variable for SADC, however for GDP per capita and openness, the relationship is positive while imports, telephone lines (*per 100 people)* and the dummy for SADC indicates a negative relationship. With regards to other independent variables, the research found insignificant relationship between Chinese OFDI and natural resources, political risk, inflation, exports and distance. In regression 2, only SADC countries (11 countries) were analyzed, the results indicated that GDP per capita, imports, openness and telephone lines (*per 100 people*) were significant, imports and telephone lines the sign was different as predicted in the hypotheses. Natural resources, political risk, inflation, distance and exports were insignificant. In regression 3, non-SADC countries (10 countries) were analyzed, only openness was statistically significant, however, it was not signed as predicted in our hypothesis.

Table 5. Results showing determinants of Chinese OFDI to SADC and non-SADC countries

	Regression 1 Full Sample		Regression 2 SADC		Regression 3 Non-SADC	
VARIABLES	RE	FE	RE	FE	RE	FE
GDP Per Capita	0.186**	0.266	0.403*	1.161	-0.120	0.0288
	(0.0921)	(0.328)	(0.219)	(1.326)	(0.109)	(0.188)
Natural Resources	-0.00183	-0.000725	-0.000959	0.000392	-0.00318	-0.00372
	(0.00124)	(0.00172)	(0.00222)	(0.00344)	(0.00212)	(0.00295)
Political Risk	0.00424	-0.0129	-0.00790	-0.0443*	0.00793	0.0159
	(0.00510)	(0.0136)	(0.00688)	(0.0240)	(0.00951)	(0.0152)
Inflation	0.00232	0.00276	0.00255	0.00276	0.00221	0.00252
	(0.00169)	(0.00189)	(0.00314)	(0.00330)	(0.00181)	(0.00192)
Exports	0.00241	0.0570	0.145	0.0632	-0.0102	0.00435
	(0.0608)	(0.165)	(0.0943)	(0.308)	(0.0448)	(0.262)
Imports	-0.0967*	-0.282	-0.221**	-0.454	-0.0678	-0.139
	(0.0493)	(0.168)	(0.0998)	(0.268)	(0.0613)	(0.150)
Distance	2.75e-06		6.52e-05		4.20e-05	
	(3.04e-05)		(0.000147)		(4.91e-05)	
Openness	0.317***	0.410***	0.364***	0.412*	-0.535***	-0.774
	(0.0710)	(0.117)	(0.102)	(0.205)	(0.202)	(0.533)
Telephone lines (per 100 people)	-0.0264**	-0.0267	-0.0536**	0.198	0.00675	-0.0634
	(0.0112)	(0.0425)	(0.0247)	(0.380)	(0.0223)	(0.0446)
SADC	-					

	0.415***					
	(0.0944)					
Constant	4.664***	6.613*	1.932	2.677	6.111***	6.696*
	(1.169)	(3.554)	(1.243)	(7.178)	(1.016)	(3.111)
Observations	165	165	85	85	80	80
R-squared		0.090		0.160		0.113
Number of partner	21	21	11	11	10	10

*Robust standard errors in parentheses represent * significance at 10% level, ** significance at 5% level and ***significance at 1% level*

4.2. Discussion

From our regressions 1 and 2 in table 5 market size of the host country as measured by GDP per capita had a positive influence on Chinese OFDI to SADC. Positive and significant coefficient of the market-size variable suggests the importance of market-seeking FDI motive by China. 1% rise in GDP Per capita in the whole sample caused an increase of Chinese OFDI to these countries by 0.19% and for SADC region countries by 0.40%. This supports hypothesis 1. Therefore the larger the market size per capita a host country is, the more it attracts Chinese OFDI. The results are in line with Jordaan (2004) who says that FDI will move to countries with larger and expanding markets and greater purchasing power, where firms can potentially receive a higher return on their capital.

Imports from host countries to China was negatively associated to Chinese outward FDI for the whole sample and for SADC countries, this is contrary to what was predicated. China imports raw materials and intermediate products for further processing in China, so the more China imports from the host countries the more the Chinese outward FDI is reduced. In this research a 1% increase in China‘s imports from all the countries under this research (full sample) was associated with a 0.1% decrease in Chinese outward FDI flow to these countries. In SADC region, 1% increase In China‘s imports from SADC countries reduced Chinese outward FDI by 0.22%.

The degree of openness as predicted in the hypothesis was positive and strongly significant for the whole sample and for SADC countries (regression 1 and 2). In regression 3, openness is significant but negatively related to Chinese outward FDI, this implies that non-SADC countries were not open to Chinese outward FDI in the period under study.

Telephone line (per 100 people) which is a proxy for infrastructure was found to have a negative relationship with Chinese outward FDI flow. From literature and other researchers, the results shows a positive relationship, implying that an increase in infrastructure leads to attracting more FDI. This research did find evidence to support the results, perhaps the data used are not enough to show the effect of infrastructure in attracting FDI. On the other hand, it may be because of the increased use of mobile phones than ground line telephones.

The dummy for SADC was found significant and negatively related to Chinese OFDI. As mentioned earlier on that SADC region is one of the RECs, perhaps there are some policies which are not favorable in attracting FDI. This implies that being a member of SADC reduces the flow of Chinese outward FDI into the region. As a Free Trade Area, it implies that within the region, countries trade among themselves and trade barriers are relaxed making the investments from within the region cheap and making those from outside the region very expensive and unattractive, non-member countries are discriminated, therefore the SADC is negatively related to Chinese OFDI.

Comparing the determinants of SADC and non-SADC, it can be seen that in SADC, the determinants were GDP per capita, imports to China, openness to FDI and telephone line *per 100 people* depicting infrastructure, while in non-SADC the main determinant was openness to FDI. Though openness to FDI was significant in both SADC and non-SADC countries, but the relationship was different. In SADC it was a positive relationship while in non-SADC the relation was negative.

5.0. CONCLUSION AND POLICY RECOMMENDATION/ SUGGESTIONS

5.1. Conclusion

This research performed an empirical investigation into the determinants of Chinese OFDI to Africa (SADC and non-SADC) by using panel data from 21 (11 SADC and 10 non-SADC) countries. The main objective of the study was to analyze the determinants of Chinese OFDI in SADC and non-SADC countries. Specifically the paper was to identify the determinants of Chinese OFDI to SADC and non-SADC countries and make comparison of the determinants between SADC region and non-SADC region countries.

The study identified GDP per Capita, imports from host countries to China, degree of openness of the host country, telephone lines (per 100 people) of the host country and being a SADC member as the main determinants of Chinese OFDI. For SADC countries alone the main determinants that were significant were, GDP per capita, imports by China, degree of openness telephone lines (per 100 people). One result that shocked the researcher is the telephone lines, which is the proxy for infrastructure which in studies have shown to be determinant of FDI and positively related here it was found significant but the relationship was negative. In non-SADC countries, only degree of openness was significant but the relationship was negative.

5.2. Suggestions/ Policy Recommendation

Based on the results, SADC economies seem to have policies that hinder Chinese OFDI. SADC as a trading block it means there are policies which favor member countries and hinder non-member countries. SADC attract a significant Chinese OFDI, the percentage share is still small as evidenced from the literature. The region need to take up serious measures which would help it to improve its attraction and attract more investors. Here are some suggestions.

Currently SADC does not have any official policy on China. SADC region countries should put in place policies that will help to meet critical success factors in foreign investor‘s wish list including Chinese OFDI to the region. SADC as one of the African Regional Economic Communities (RECs), its major challenge like the other RECs in Africa is lack of adequate economic and political structures, institutions and policies. As the ability to strengthen many aspects of Regional Economic

Communities depend on member states in agreeing on a set of political and socio-economic strategic priorities at the core of regional integration, implementing mechanisms for co-operation and integration as well as ensuring compliance are all challenges which need to be negotiated internally by all SADC members. With a coordinated China policy, SADC can effectively foster regional integration through both increased trade capacity and infrastructural development. In doing so it would increase Chinese OFDI to the region. Hence SADC region should consider putting the policy into action.

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APPENDICES: PANEL DATA SET

year	China	Partner	GDP Partner	GDPP Partne	Inflation	Distance	p Expor	p imports	POLI	FDI	Openness	Ores	Telepho	SADC
2005	China	Angola	28233699240	1706.543616	22.96374444	12014	372794000	6581829000	0.73	470000	0.001664677	..	0.5848513	1
2005	China	Algeria	1.03199E+11	3038.748713	1.382446567	9119	1.404E+09	363733000	0.71	84870000	0.082239448	0.49115221	7.5734146	0
2005	China	Botswana	9931223496	5294.379478	8.610225285	11785	58513000	4004000	0.86	3690000	0.037155543	11.517191	7.2749033	1
2005	China	Cameroon	16587921221	914.5531201	2.013539502	10999	129873000	66753000	0.79	190000	0.001145412	5.54208953	0.5531617	0
2005	China	Egypt	89685724889	1249.49326	4.869396969	7550	1.934E+09	211136000	0.84	13310000	0.014840712	2.80995731	14.483818	0
2005	China	Ethiopia	12173919387	159.8314365	12.94487921	8326	284001000	85709000	0.5	4930000	0.040496407	1.00872703	0.8013248	0
2005	China	Ghana	10731883141	501.8642947	15.11818572	11828	672424000	96006000	0.77	2570000	0.023947335	5.0226696	1.5035797	0
2005	China	Guinea	2937072009	306.7011791	31.37330259	12513	144313000	3002000	0.56	16340000	0.556336377	74.6171639	0.2610603	0
2005	China	Kenya	18737895401	523.6137892	10.31277836	9223	456915000	17652000	0.58	2050000	0.010940396	1.93924483	0.8012386	0
2005	China	Madagascar	5038577519	275.4767076	18.51256401	9676	182640000	13997000	0.7	140000	0.002778562	3.93978695	0.5049973	1
2005	China	Malawi	2754995877	213.1566745	15.41034466	10396	16351000	2068000	0.67	..		0.19562582	0.7947854	1
2005	China	Mauritius	6283796155	5054.318112	4.941599281	9051	177342000	8277000	..	2040000	0.032464452	0.46308438	29.477585	1
2005	China	Morrocco	59523857868	1948.201997	0.98264166	9950	1.206E+09	277448000	0.81	850000	0.001427999	8.75278364	4.4519044	0
2005	China	Mozambique	6578515331	313.1079297	7.167769198	11344	91478000	73527000	0.84	2880000	0.043778875	59.4388641	0.3140924	1
2005	China	Namibia	7261301442	3582.24386	2.261219394	12372	60354000	76389000	0.85	180000	0.002478894	14.789248	6.8571888	1
2005	China	Nigeria	1.12248E+11	804.1523667	17.86349337	12237	2.303E+09	526879000	0.58	53300000	0.047484005	..	0.8763479	0
2005	China	South Africa	2.47052E+11	5185.849388	3.399299946	11672	3.826E+09	3443052000	0.83	47470000	0.019214612	22.4458966	10.150245	1
2005	China	Tanzania	14141916592	374.9992699	5.034570093	9418	303582000	170718000	0.67	960000	0.00678833	11.9165608	0.3975852	1
2005	China	Togo	2115154090	381.7820197	6.80159017	11668	538095000	31874000	0.63	310000	0.014656143	10.2685491	1.1340898	0
2005	China	Zambia	7178556337	625.8537548	18.3244397	10953	48495000	252062000	0.78	10090000	0.140557509	71.7124905	0.8253254	1
2005	China	Zimbabwe	5755215232	452.7890275	302.1169963	10895	125370000	157918000	0.42	1470000	0.025542051	23.226668	2.5805256	1
2006	China	Angola	41789494462	2440.631716	13.30325336	12014	894186000	10933295000	0.74	22390000	0.053578059	..	0.573313	1
2006	China	Algeria	1.17027E+11	3391.367826	2.314524087	9119	1.948E+09	143122000	0.73	98930000	0.084536296	0.72169671	8.2339218	0
2006	China	Botswana	10126990488	5341.397472	11.55521879	11785	61782000	8166000	0.86	2760000	0.027253901	16.7673389	6.9640243	1
2006	China	Cameroon	17953103009	964.6015355	5.11757816	10999	191147000	199663000	0.78	730000	0.004066149	4.90507321	0.7022053	0
2006	China	Egypt	1.07484E+11	1472.570548	7.644526445	7550	2.976E+09	216769000	0.84	8850000	0.008233781	2.30031045	14.806914	0
2006	China	Ethiopia	15000803171	191.6040212	12.31	8326	430770000	131823000	0.51	23950000	0.159658118	0.64667607	0.9260953	0
2006	China	Ghana	20410239313	929.9455454	10.91516997	11828	803092000	79678000	0.77	500000	0.002449751	3.14520117	1.6236495	0
2006	China	Guinea	2821346684	287.9229857	34.6952706	12513	175491000	12281000	0.55	750000	0.02658305	56.6816927	0.2347187	0
2006	China	Kenya	22504136042	612.2325312	14.45373421	9223	621040000	24416000	0.58	180000	0.000799853	2.46429109	0.7981066	0
2006	China	Madagascar	5515236338	292.956519	10.77224539	9676	222563000	23810000	0.7	1170000	0.021213959	3.60706802	0.6895152	1
2006	China	Malawi	3116789658	234.2123961	13.97429435	10396	30741000	986000	0.67	..		0.1035269	0.9768902	1
2006	China	Mauritius	6731536244	5373.630551	8.932648402	9051	197754000	7326000	0.78	16590000	0.246451915	0.78283081	29.374	1
2006	China	Morrocco	65637107776	2128.074688	3.28476167	9950	1.57E+09	359406000	0.8	1780000	0.002711881	9.32016617	4.165537	0
2006	China	Mozambique	7095910828	328.7073992	13.23866387	11344	127940000	79772000	0.84	0	0	59.945204	0.3257144	1
2006	China	Namibia	7978676470	3886.480583	5.053245608	12372	133158000	121857000	0.86	850000	0.010653396	26.0325395	6.6326145	1
2006	China	Nigeria	1.4543E+11	1014.756968	8.239526517	12237	2.852E+09	277747000	0.55	67790000	0.046613554	0.00574614	1.1778063	0
2006	China	South Africa	2.61007E+11	5407.258649	4.641624894	11672	5.768E+09	4085358000	0.83	40740000	0.015608774	28.5809038	9.9939985	1
2006	China	Tanzania	14331231239	369.4021499	7.250972621	9418	382773000	152678000	0.67	12540000	0.087501205	17.315937	0.3805485	1
2006	China	Togo	2202809211	387.4198489	2.226583649	11668	704015000	21599000	0.65	4580000	0.207916327	..	1.4431804	0
2006	China	Zambia	10702200822	908.3817072	9.019572472	10953	102525000	270356000	0.77	87440000	0.817028212	84.7726796	0.79299	1
2006	China	Zimbabwe	5443896500	427.8343859	1096.677633	10895	136293000	139093000	0.42	3420000	0.062822649	7.22023429	2.637165	1
2007	China	Angola	60448890972	3412.718998	12.24867552	12014	1.235E+09	12888665000	0.73	41190000	0.068140208	..	0.5323488	1
2007	China	Algeria	1.34978E+11	3845.847296	3.673827269	9119	2.742E+09	1160932000	0.71	145920000	0.108106612	0.50857067	8.7426425	0
2007	China	Botswana	10939028155	5711.728492	7.080998472	11785	119879000	26435000	0.85	1870000	0.017094754	23.283402	7.1505289	1
2007	China	Cameroon	20431779034	1069.856826	0.921402246	10999	299056000	160018000	0.79	2050000	0.01003339	4.9326898	0.9889894	0
2007	China	Egypt	1.30478E+11	1757.760484	9.318969058	7550	4.468E+09	239739000	0.79	24980000	0.019145017	2.7895471	15.12719	0
2007	China	Ethiopia	18975613956	235.8956606	17.23800196	8326	778360000	87130000	0.51	13280000	0.06998456	3.01415164	1.0940829	0
2007	China	Ghana	24757608488	1099.084759	10.73272807	11828	1.228E+09	53522000	0.75	1850000	0.00747245	4.89242064	1.6714672	0
2007	China	Guinea	4134173271	411.4847069	22.84442192	12513	264634000	92357000	0.5	13200000	0.319289956	82.2294461	0.2189716	0
2007	China	Kenya	27236739896	721.4590107	9.75888023	9223	948149000	28112000	0.58	8900000	0.032676451	2.86451222	1.2284442	0
2007	China	Madagascar	7342905883	379.0664996	10.30072119	9676	329780000	29662000	0.72	13240000	0.180310087	3.29273748	0.6912077	1
2007	China	Malawi	3647817219	265.9969075	7.952209909	10396	42388000	759000	0.67	200000	0.005482731	0.01607074	1.2776148	1
2007	China	Mauritius	7792063567	6182.200111	8.802724653	9051	286147000	5025000	0.78	15580000	0.199947034	0.72800667	29.571237	1
2007	China	Morrocco	75226318359	2416.263549	2.042085127	9950	2.183E+09	423892000	0.72	2640000	0.00350941	10.3488148	7.8056552	0
2007	China	Mozambique	8035635713	362.4324248	8.162567333	11344	163553000	124248000	0.84	10030000	0.124818998	63.9887277	0.3518045	1
2007	China	Namibia	8811608767	4234.925154	6.727789256	12372	246523000	157659000	0.87	910000	0.010327286	34.9949696	6.6406017	1
2007	China	Nigeria	1.66451E+11	1130.879787	5.382223652	12237	3.799E+09	537080000	0.52	390350000	0.234513175	0.40477462	1.0732335	0
2007	China	South Africa	2.86172E+11	5850.958488	7.098419808	11672	7.445E+09	6618094000	0.83	454410000	0.158789214	29.5295946	9.8421907	1

year	China	Partner	GDP Partner	GDPP Partne	Inflation	Distance	p Expor	p imports	POLI	FDI	Openness	Ores	Telephone	SADC
2007	China	Tanzania	16825547176	421.3001839	7.02551437	9418	602969000	203600000	0.67	-3820000	-0.022703571	17.6211513	0.397057926	1
2007	China	Togo	2523462649	432.4844132	0.959947037	11668	1.377E+09	26105000	0.69	2700000	0.106995838	12.7952853	1.70499242	0
2007	China	Zambia	11541420981	953.0787078	10.6573496	10953	198265000	394862000	0.78	119340000	1.034014791	83.0278042	0.757984148	1
2007	China	Zimbabwe	5291950101	415.375482	24411.03081	10895	203347000	142769000	0.38	12570000	0.237530584	19.9223876	2.70797227	1
2008	China	Angola	84178086999	4596.268431	12.47371341	12014	2.942E+09	22382524000	0.75	-9570000	-0.011368754	..	0.624075832	1
2008	China	Algeria	1.71E+11	4786.51807	4.862990528	9119	3.752E+09	849219000	0.71	42250000	0.024707579	0.63290294	8.590924037	0
2008	China	Botswana	11113042238	5746.978872	12.70218839	11785	169152000	183913000	0.85	14060000	0.126518011	19.3498763	7.35794601	1
2008	China	Cameroon	23735537026	1211.304186	5.337806276	10999	379284000	479191000	0.79	1690000	0.007120125	10.0865206	1.30291228	0
2008	China	Egypt	1.62818E+11	2156.762969	18.31683168	7550	5.874E+09	428939000	0.77	14570000	0.008948632	6.52290052	15.70040699	0
2008	China	Ethiopia	25586656105	309.6863662	44.39128123	8326	1.231E+09	81656000	0.55	9710000	0.037949469	0.55050142	1.086025268	0
2008	China	Ghana	28528016511	1234.437253	16.52214331	11828	1.748E+09	93400000	0.74	10990000	0.038523534	6.38570877	0.622670422	0
2008	China	Guinea	4515824643	437.8056827	18.38406459	12513	334456000	25303000	0.53	8320000	0.184240989	59.208204	0.261762897	0
2008	China	Kenya	30465489796	785.7342003	26.23981664	9223	1.249E+09	34723000	0.64	23230000	0.07625021	3.22706106	1.667014114	0
2008	China	Madagascar	9394330368	471.442351	9.223620364	9676	602593000	65172000	0.72	61160000	0.651030969	3.2228994	0.827283478	1
2008	China	Malawi	4276769712	302.497319	8.712601866	10396	81050000	8111000	0.63	5440000	0.127198806	0.02161787	0.787461946	1
2008	China	Mauritius	9641077098	7599.986676	9.732723333	9051	320088000	5705000	0.78	34440000	0.357221498	0.85028408	29.72200606	1
2008	China	Morrocco	88882967742	2827.287803	3.707317073	9950	2.349E+09	461059000	0.72	6880000	0.007740516	15.4647292	9.662876463	0
2008	China	Mozambique	9891003405	434.5301501	10.3277911	11344	295995000	125882000	0.84	5850000	0.059144657	57.2778028	0.344091879	1
2008	China	Namibia	8829927125	4183.231369	10.35087719	12372	243165000	282178000	0.87	7590000	0.085957674	31.300995	6.886517898	1
2008	China	Nigeria	2.08065E+11	1376.015915	11.57798352	12237	6.767E+09	508381000	0.55	162560000	0.078129534	0.3311717	0.864785136	0
2008	China	South Africa	2.73142E+11	5511.195079	11.53645077	11672	8.618E+09	9234973000	0.83	4807860000	1.760206924	29.1266015	9.698117399	1
2008	China	Tanzania	20715086119	503.6045469	10.27839376	9418	950439000	131588000	0.67	18220000	0.087955222	16.8321185	0.292320947	1
2008	China	Togo	3159544509	527.690899	8.681967213	11668	1.218E+09	30900000	0.69	4200000	0.132930553	14.7983531	2.353556774	0
2008	China	Zambia	14640792100	1175.351051	12.44557935	10953	264348000	522498000	0.79	213970000	1.461464643	85.3720387	0.727329536	1
2008	China	Zimbabwe	4415702801	345.4074343	..	10895	133100000	148214000	0.33	-720000	-0.016305445	20.557737	2.722143961	1
2009	China	Angola	75492417649	3988.683557	13.73145114	12014	2.386E+09	14675831000	0.75	8310000	0.011007728	..	1.601862982	1
2009	China	Algeria	1.37212E+11	3771.284844	5.734333414	9119	4.18E+09	946620000	0.74	228760000	0.166720361	0.4707467	7.080624513	0
2009	China	Botswana	10106837286	5178.439109	8.027297031	11785	165398000	65287000	0.86	18440000	0.182450746	16.0520152	7.041089503	1
2009	China	Cameroon	22165009363	1102.520394	3.043618479	10999	415876000	397668000	0.79	820000	0.003699525	5.4231933	2.16580875	0
2009	China	Egypt	1.88984E+11	2461.530857	11.76349544	7550	5.107E+09	752543000	0.75	133860000	0.07083136	7.39249391	13.43217963	0
2009	China	Ethiopia	28170081728	332.0454408	8.468335788	8326	1.252E+09	214756000	0.52	74290000	0.263719505	0.76805769	1.078594091	0
2009	China	Ghana	25978563316	1096.533657	19.25071443	11828	1.534E+09	79622000	0.74	49350000	0.189964316	4.1726981	1.128626839	0
2009	China	Guinea	4609923720	435.1756629	4.68438869	12513	281384000	6240000	0.52	26980000	0.585259142	..	0.207679458	0
2009	China	Kenya	30580367979	767.8737535	9.234125924	9223	1.277E+09	29662000	0.56	28120000	0.09195442	1.99549955	1.667554139	0
2009	China	Madagascar	8589560142	419.0909429	8.956741087	9676	395383000	54822000	0.64	42560000	0.495485209	3.01849521	0.908239511	1
2009	China	Malawi	5030639934	345.1947614	8.422044277	10396	65134000	16990000	0.63	..		0.78776458	0.763949893	1
2009	China	Mauritius	8834661043	6928.972012	2.549811288	9051	292129000	6026000	0.89	14120000	0.159825034	0.65205379	30.57934973	1
2009	China	Morrocco	90908402631	2861.027067	0.994825964	9950	2.129E+09	375014000	0.7	16420000	0.018062137	8.39193652	11.2425425	0
2009	China	Mozambique	9674037707	414.110156	3.251692719	11344	339134000	177554000	0.86	15850000	0.163840585	3.90715715	0.352925439	1
2009	China	Namibia	8859203056	4133.058699	8.782413245	12372	264497000	312381000	0.87	11620000	0.131163039	26.7738974	6.935952355	1
2009	China	Nigeria	1.69481E+11	1090.746284	11.53767275	12237	5.476E+09	896526000	0.56	171860000	0.101403536	0.19813251	0.953784445	0
2009	China	South Africa	2.83986E+11	5654.492378	7.13	11672	7.366E+09	8693253000	0.83	41590000	0.014645111	29.3365195	9.565815908	1
2009	China	Tanzania	21368165400	504.2002377	12.14222787	9418	914052000	195968000	0.67	21580000	0.100991356	24.5792391	0.396248815	1
2009	China	Togo	3163000591	514.7730045	3.313390805	11668	1.13E+09	36373000	0.67	8910000	0.281694541	30.3101761	2.908523894	0
2009	China	Zambia	12805029522	998.4404343	13.39525463	10953	152030000	1272464000	0.78	111800000	0.873094434	81.1263483	0.704411553	1
2009	China	Zimbabwe	6133240672	475.8538049	..	10895	156285000	140850000	0.33	11240000	0.183263638	22.2944113	2.987962217	1
2010	China	Angola	82470894868	4218.649126	14.4705412	12014	2.004E+09	22815049000	0.73	101110000	0.122600828	..	1.43802863	1
2010	China	Algeria	1.61207E+11	4349.569325	3.913043478	9119	4E+09	1177317000	0.7	186000000	0.115379387	0.29125867	7.885884021	0
2010	China	Botswana	13746712706	6980.361809	6.948876587	11785	369503000	53366000	0.82	43850000	0.318985353	14.5427849	6.978070329	1
2010	China	Cameroon	22493301699	1090.619066	1.275380462	10999	540793000	460904000	0.75	14880000	0.066153027	2.96194113	2.615860297	0
2010	China	Egypt	2.18888E+11	2803.532963	11.26518827	7550	6.041E+09	917930000	0.72	51650000	0.023596563	6.25523404	12.31897041	0
2010	China	Ethiopia	26288737405	301.8388264	8.136941131	8326	1.21E+09	273970000	0.55	58530000	0.222642872	1.12391165	1.043549076	0
2010	China	Ghana	32174210793	1326.066112	10.70756812	11828	1.933E+09	123382000	0.69	55980000	0.173990282	11.249452	1.14535768	0
2010	China	Guinea	4735956476	435.448888	15.46198107	12513	421350000	54997000	0.54	9740000	0.205660674	..	0.165501521	0
2010	China	Kenya	32198151217	787.0639352	3.961388891	9223	1.786E+09	39208000	0.59	101220000	0.314365876	2.03049483	0.930714988	0
2010	China	Madagascar	8837041787	419.2238133	9.246717346	9676	396791000	105382000	0.62	33580000	0.379991414	9.46323059	0.6739476	1
2010	China	Malawi	5398616985	359.5795268	7.411590929	10396	80077000	31476000	0.63	9860000	0.182639369	11.0748328	1.013128415	1

Year	China	Partner	GDP Partner	GDPP Partne	Inflation	Distance	p Expor	p Imports	POLI	FDI	Openness	Ores	Telephone	SADC
2010	China	Mauritius	9718331363	7586.969533	2.892968717	9051	393287000	10099000	0.89	22010000	0.226479209	0.3560415	31.50344653	1
2010	China	Morrocco	90770671432	2822.733739	0.987355331	9950	2.484E+09	452322000	0.7	1750000	0.001927936	11.6760092	11.84919203	0
2010	China	Mozambique	9274448732	386.9631655	12.70123982	11344	496391000	201078000	0.83	280000	0.003019047	54.4496302	0.367426154	1
2010	China	Namibia	11065912279	5078.51302	4.470090208	12372	229542000	481495000	0.86	5510000	0.049792551	27.7620815	7.208140371	1
2010	China	Nigeria	3.66351E+11	2293.885305	13.72020184	12237	6.697E+09	1071622000	0.55	184890000	0.050467948	1.08150146	0.657599148	0
2010	China	South Africa	3.63241E+11	7136.963299	4.26234355	11672	1.08E+10	14896422000	0.83	411170000	0.113194906	32.743996	9.447575885	1
2010	China	Tanzania	22915004297	524.6937886	6.200155956	9418	1.253E+09	406945000	0.67	25720000	0.112240869	33.7370909	0.388032196	1
2010	China	Togo	3172945282	503.1617885	1.834169331	11668	1.333E+09	61619000	0.67	11770000	0.370948723	10.7396525	0.95164711	0
2010	China	Zambia	16190196832	1224.953863	8.501761334	10953	301676000	2578407000	0.78	75050000	0.463552116	85.9730558	0.895726219	1
2010	China	Zimbabwe	7433314460	568.4275419	..	10895	315863000	246058000	0.33	33800000	0.454709675	34.8773111	2.898223122	1
2011	China	Angola	1.04116E+11	5159.233666	13.46701535	12014	2.784E+09	24922180000	0.67	72720000	0.069845264	..	1.283739889	1
2011	China	Algeria	1.99071E+11	5271.590312	4.521764663	9119	4.472E+09	1960887000	0.62	114340000	0.057436833	0.255949	8.101419587	0
2011	China	Botswana	15292424757	7697.396215	8.458165875	11785	616162000	100668000	0.76	21860000	0.142946592	8.44058182	7.528963845	1
2011	China	Cameroon	25486923059	1204.698212	2.939699463	10999	874109000	662949000	0.71	1870000	0.007337096	5.2119205	3.162017391	0
2011	China	Egypt	2.36001E+11	2972.583516	10.0539169	7550	7.283E+09	1518340000	0.64	66450000	0.028156692	6.09051751	10.97621278	0
2011	China	Ethiopia	29921241789	334.7154777	33.22421525	8326	885361000	292059000	0.52	72300000	0.241634356	1.16317615	0.927373973	0
2011	China	Ghana	39564970070	1594.030809	8.726836831	11828	3.11E+09	363185000	0.74	40070000	0.101276457	1.82640886	1.147110803	0
2011	China	Guinea	5067360041	454.0022776	21.35046642	12513	630170000	15567000	0.56	24550000	0.484473173	..	0.161268213	0
2011	China	Kenya	33620684016	799.9612452	14.0215499	9223	2.369E+09	59691000	0.56	68170000	0.202762085	..	0.6746615	0
2011	China	Madagascar	9911781297	457.207965	9.482540486	9676	5.003E+09	103389000	0.66	23100000	0.23305599	10.3054447	1.092595236	1
2011	China	Malawi	5621000678	363.6415594	7.622822628	10396	112097000	46036000	0.63	1200000	0.021348512	8.81717722	1.122307308	1
2011	China	Mauritius	11250559553	8748.144166	6.531353547	9051	496927000	9687000	0.89	419460000	3.728347893	0.72511332	30.33419439	1
2011	China	Morrocco	99211339029	3044.107888	0.92236032	9950	3.043E+09	475628000	0.7	9110000	0.009182418	13.2029961	11.12333147	0
2011	China	Mozambique	12568440513	511.2994942	10.35113257	11344	700247000	257241000	0.81	20260000	0.161197405	50.619166	0.358482911	1
2011	China	Namibia	12623100410	5692.188831	5.045827303	12372	282265000	224481000	0.85	5040000	0.0399268	27.5598356	7.172515735	1
2011	China	Nigeria	4.13542E+11	2518.631878	10.84079259	12237	9.206E+09	1583680000	0.56	197420000	0.047738857	0.31695509	0.438146772	0
2011	China	South Africa	4.01802E+11	7789.944597	5.280022685	11672	1.336E+10	32095190000	0.83	-14170000	-0.003526611	35.1246481	9.343772102	1
2011	China	Tanzania	23874165047	530.3948552	12.69096947	9418	1.654E+09	489897000	0.67	53120000	0.222499928	35.4383851	0.347458452	1
2011	China	Togo	3685781120	569.4697158	3.572277228	11668	1.831E+09	76599000	0.62	9040000	0.24526687	8.3205862	0.931244886	0
2011	China	Zambia	19204037684	1408.561319	6.432478237	10953	617335000	2775940000	0.77	291780000	1.519367983	80.6836325	0.628783062	1
2011	China	Zimbabwe	8865427917	663.6426223	..	10895	410278000	464055000	0.33	440030000	4.963437796	39.466829	2.66492239	1
2012	China	Angola	1.14147E+11	5482.428049	10.29349433	12014	4.039E+09	33561897000	0.69	392080000	0.343486816	..	1.000671213	1
2012	China	Algeria	2.05789E+11	5347.704734	8.894585294	9119	5.417E+09	2311906000	0.61	245880000	0.119481723	0.24608124	8.397060369	0
2012	China	Botswana	14504339386	7238.019365	7.540284094	11785	182121000	119479000	0.8	21100000	0.145473706	8.63920085	8.008742908	1
2012	China	Cameroon	25321590402	1166.91341	2.942510001	10999	1.064E+09	890432000	0.7	17650000	0.069703363	1.59544237	3.398421844	0
2012	China	Egypt	2.62832E+11	3256.018469	7.11815562	7550	8.224E+09	1320737000	0.63	119410000	0.045432078	5.9622931	10.60121201	0
2012	China	Ethiopia	41717843026	454.7952305	22.77046088	8326	1.53E+09	309366000	0.49	121560000	0.29138611	0.62907612	0.869411323	0
2012	China	Ghana	40710781539	1604.905782	9.160778311	11828	4.791E+09	643548000	0.73	208490000	0.512124779	2.00407465	1.123455845	0
2012	China	Guinea	5631621298	491.7899781	15.22455748	12513	753851000	10995000	0.52	64440000	1.144253077	..	0	0
2012	China	Kenya	40697163224	942.5408848	9.378395851	9223	2.789E+09	52408000	0.55	78730000	0.193453287	..	0.582625824	0
2012	China	Madagascar	9975124872	447.4371289	6.358698792	9676	542414000	114443000	0.63	8430000	0.08451022	19.469035	1.089817607	1
2012	China	Malawi	4263794984	268.0539113	21.271265	10396	249067000	47503000	0.63	10330000	0.242272437	..	1.42894567	1
2012	China	Mauritius	10486037634	8119.546956	3.852160333	9051	620171000	10713000	0.67	57830000	0.551495255	0.86637472	28.16328737	1
2012	China	Morrocco	95981572517	2902.329958	1.278741213	9950	3.131E+09	558416000	0.68	1050000	0.00109396	12.1132347	10.08283749	0
2012	China	Mozambique	14243717484	565.1507459	2.091276161	11344	940887000	403320000	0.81	230520000	1.618397727	38.961023	0.34971479	1
2012	China	Namibia	13072278943	5785.748182	6.539309331	12372	438911000	241268000	0.85	25120000	0.192162362	29.2501855	7.579425093	1
2012	China	Nigeria	4.59616E+11	2722.298481	12.21700718	12237	9.296E+09	1273793000	0.54	333050000	0.072462675	0.43351983	0.247679114	0
2012	China	South Africa	3.84313E+11	7351.756648	5.413849759	11672	1.532E+10	44653737000	0.83	-814910000	-0.212043488	31.5236451	9.252486164	1
2012	China	Tanzania	28242425168	608.7158943	16.00109385	9418	2.09E+09	379281000	0.67	11970000	0.042383046	24.5468754	0.369099063	1
2012	China	Togo	3813834650	574.1195223	2.630773937	11668	3.383E+09	84811000	0.58	20590000	0.539876578	14.8755347	0.927151401	0
2012	China	Zambia	20590283022	1462.887261	6.581169944	10953	697306000	2686560000	0.79	291550000	1.415959167	..	0.586439925	1
2012	China	Zimbabwe	9802360203	714.2330072	..	10895	430484000	584427000	0.33	287470000	2.932661054	48.5694846	2.197923583	1