Thesis: Effect of Sanctions on FDI – Case study On Sudan & South Sudan

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Abstract

The purpose of this research was to understand the effect of economic sanctions on the amount of incoming FDI to a specific country. The case study chosen for this research was the case of Sudan and South Sudan. Sudan and South Sudan were one country which was under several economic sanctions applied since 1997, however and in 2011 South Sudan got separated from Sudan, and relieved from these sanctions.

A difference in difference approach was used to perform a regression analysis on a set of data showing the amounts of FDI and number of FDI projects coming into the two countries during the period from 2003 and up to 2019. The fact that the two countries were originally one country going through identical external and internal economic circumstances allowed the assumption of the validity of the common trend assumption. The existence of sanctions was represented in the regression model using the time variable and the location/country variable.

The research main findings was that the number of FDI projects and its amounts was more affected by the existence of natural resources in the country (such as oil in South Sudan) compared to the political situations and implications such as South Sudan separation from Sudan and the existence/lifting of the sanctions .This appeared for example as an increase in the number/amounts during the oil production period in Sudan despite been under the sanctions at the time, while no major increase in FDI occurred for South Sudan after its separation from Sudan despite that the sanctions were lifted.

This research represents an initial step in realizing the effect and implications of sanctions on FDI. To further solidify the analysis results and reduce the data noise coming from the relatively small data

set, it is recommended to replicate and expand the analysis with a higher number of observations while including other variables such as exports amounts, imports, etc.

Acknowledgment

بِسْمِ اللَّهِ الرَّحْمَـٰنِ الرَّحِيمِ

In the name of Allah, the Compassionate, the Merciful.

﴿١﴾ اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ

1. Read: In the Name of your Lord, who created.

﴿٢﴾ خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ

2. Created man from a clinging clot.

﴿٣﴾ اقْرَأْ وَرَبُّكَ الْأَكْرَمُ

3. Read: And your Lord is the Most Generous.

﴿٤﴾ الَّذِي عَلَّمَ بِالْقَلَمِ

4. He Who taught by the pen.

﴿٥﴾ عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ

5. Taught man what he never knew.

صدق الله العظيم

Table Of Contents

Abstract ..... **II**
Acknowledgment ..... **IV**
Table Of Contents **1**
List of Figures **4**
List of Tables **5**
Chapter one: Literature review on the FDI concept **6**
Introduction and general definitions: 6
Direct Investment Classification Categories 7
I. Direction of FDI flow: 8
II. Instruments of FDI 10
Determinants of FDI 11
The effect of a chosen set of FDI determinants on the amounts of inflows: 13
FDI Effect on The Economy Introduction 15
FDI Effect on host countries 15
FDI and host country economic policies 21
FDI Effect on Home economies 21
FDI Recent Statistics: 22
FDI In Africa: 23
FDI and Sanctions: 24
Sanctions and Informal economy 25
Sanctions and the FDI 26
Conclusion 27
Chapter Two: Sudan Political and Economic Background **29**
About Sudan: 29
Country overview 29
Sudan Main Resources and Current Economic Indicators 30
Sudan Background Analysis 31
Phase 1: Sudan before both separation of the South, Oil discovery and sanctions imposition 31
- Political and Legal: 31

South Sudan Conflict 40
- Economical: 42

Sudan GDP and Economic Indicators 44
- Technological 46

Phase 2: Sudan during the economic boost of the oil discovery and the first imposition of sanctions 48
- Political and Legal 48

Sudan Sanctions 51
- Economical 53

Sudan Exports, Imports & FDI 57

Balance of Payments 61

Sudan GDP and Economic Indicators 62

Chapter Three: The birth of South Sudan - Political and Economic background 65

South Sudan: Country overview 65
- Political and Legal background: 67
- Economical 67

South Sudan and FDI 68

South Sudan Inflation and Exchange rates 69

South Sudan Investment environment 70

Social 71

Chapter 4: Research Methodology 73

Research Methodologies Overview 73

Purpose of Research 73

Qualitative research 75

Comparisons between the two approaches: 75

About Difference in Difference approach (Diff in Diff) 79

Advantages, and Constraints of Difference in difference methodology: 82

About Stata: 82

Overview about the data used 83

Chapter 5: Research Findings, Results, and Discussions 85

Data Processing Approach 85

Analysis Approach 86

Research hypothesis: 88

Analysis Results 89
Results Interpretation 96
Results Conclusion and Recommendations 97
References 98

List of Figures

FIGURE 1:MAIN CATEGORIES OF THE FDI 7

FIGURE 2:MAIN DETERMINANTS OF FDI AND THE CORRESPONDING LITERATURE DENOTING THE RELATION, PREPARED BY AUTHOR 12

FIGURE 3:MAIN EFFECTS OF THE FDI ON THE HOST COUNTRIES' ECONOMIES, ... 16

FIGURE 4:FDI INFLOWS, GLOBAL AND BY GROUP OF ECONOMIES (2007 -2020) 22

FIGURE 5: FDI INFLOWS BY REGION 2019 &2020, SOURCE: WORLD INVESTMENT REPORT, 2021 23

FIGURE 6 :MAP OF SUDAN 29

FIGURE 7:SERIES OF SANCTIONS IMPOSED IN SUDAN AND THEIR TIME FRAME, PREPARED BY AUTHOR, ... 52

FIGURE 8:COMPARISON BETWEEN OIL, AGRICULTURE, AND SERVICE SECTORS % OF CONTRIBUTION TO GDP BETWEEN 2004 & 2010, ..55

FIGURE 9: SECTORIAL COMPOSITION OF SUDAN GDP (1999 -2010) IN PERCENT 57

FIGURE 10 : MAP OF SOUTH SUDAN 65

FIGURE 11: POPULATION, AGE AND GENDER DISTRIBUTION OF SOUTH SUDAN, SOURCE: UN ESA, WORLD POPULATION PROSPECTS 66

FIGURE 12:SOUTH SUDAN GDP (2011 - 2013) 68

FIGURE 13:FORIGN AID INFLOWS TO SOUTH SUDAN IN 2010 AND THEIR ORIGIN 69

FIGURE 14: INFLATION AND USD/SSP EXCHANGE RATE 2012 -2014 70

FIGURE 15 : SOUTH SUDAN PERCENTAGE OF POPULATION POVERTY 71

FIGURE 16 : SECONDARY SCHOOL GROSS ENROLLMENT 72

FIGURE 17:STRENGTHS AND WEAKNESS OF QUALITATIVE AND QUANTITATIVE RESEARCH 77

FIGURE 18: REGRESSION ANALYSIS AND TREND ESTIMATION 78

FIGURE 19:DIFFRENCE IN DIFFERENCE METHOD ILLUSTRATION 80

FIGURE 20: ELEMENTS OF DIFFERENCE IN DIFFERENCE APPLICATION, PREPARED BY AUTHOR 81

FIGURE 21:ADVANTAGES AND CONSTRAINTS OF DIFFERENCE IN DIFFERENCE METHODOLOGY 82

FIGURE 22:CASE STUDY DATA SET IN TERMS OF NUMBER OF FDI PROJECTS PER YEAR 83

FIGURE 23:CASE STUDY DATA SET IN TERMS OF AMOUNTS OF FDI PROJECTS PER YEAR 84

FIGURE 24: PROCESSING RESULTS OF THE FIRST ITERATION – AMOUNTS OF FDI 90

FIGURE 25:PROCESSING RESULTS OF THE SECOND ITERATION – AMOUNTS OF FDI 92

FIGURE 26:PROCESSING RESULTS OF THE FIRST ITERATION - NUMBER OF FDI PROJECTS 94

FIGURE 27:PROCESSING RESULTS OF THE FIRST ITERATION - NUMBER OF FDI PROJECTS 95

List of Tables

TABLE 1:TYPES OF SANCTIONS AND A DESCRIPTION OF THEIR EFFECT, PREPARED BY AUTHOR, BASED ON PETRESCU 2016 26
TABLE 2:DIFFERENT GOVERNMENTS OF SUDAN, DURATIONS OF THEIR RULE AND THE HIGHLIGHTS OF THEIR REIGN FROM 1956 TO 1989..40
TABLE 3: PERCENTAGE OF GROWTH OF THE MANUFACTURING SECTOR.....56
TABLE 4:GDP PARAMETERS CHANGES IN SUDAN FROM 2000 TO 2009 56
TABLE 5 :MAJOR FDI INFLOWS TO SUDAN FROM 1996 TO 2009 58
TABLE 6:PERCENTAGE OF SUDAN EXPORTS AND THE RECIPIENT COUNTRIES OF THOSE EXPORTS 60
TABLE 7:PERCENTAGE OF SUDAN IMPORTS AND THEIR EXPORTING COUNTRIES.....61
TABLE 8:SUDAN MAIN ECONOMIC INDICATORS FOR THE PERIOD OF 2011 – 2013 63
TABLE 9 :SUDAN GDP CHANGE DUE TO SANCTION IN TERMS OF THE PERCENTAGE OF ITS COMPONENTS.....64
TABLE 10: VARIABLES INTRODUCED TO STATA, THEIR INTERPRETATION AND PURPOSE 86
TABLE 11:MAJOR EVENTS IN THE TIMELINE OF SUDAN AND SOUTH SUDAN.....87

Chapter one: Literature review on the FDI concept

Introduction and general definitions:

The foreign direct investment model revolves around the concept of the establishment of a relationship between one entity, enterprise, government or even an individual who represents the direct investor that is interested in financing another entity which exists in another country or geographical location. This financing relation creates a certain level of power for the direct investor over the financed entity. This power provides the direct investor with the ability to affect the management decisions of the financed entity.

Another way to define the FDI is by looking at it as a process between individuals in a source country who seek to obtain ownership of a firm in another (host) country including access and control to its production and distribution (Imad, 2002). The formation of an FDI entails the capital financing aspects which are recorded in the balance of payments between the financing entity and all the components/elements of the associated enterprises (Duce, 2003).

It is important to highlight that the difference between and FDI and a portfolio investment relay in the different time horizon, as the FDI is considered to be long term compared to the portfolio investment. Another difference is the fact that FDI source firm seek control over the host firm resources as one of its goals which is not the case in a portfolio investment. As a result, the inclusion of the direct investment affects the ownership structure of the receiving entity and the amount of control the direct investor gains overt the entity receiving the direct investment. The *5th Edition of the IMF's Balance of*

Payment Manual defining "the owner of 10% or more of a company's capital as a direct investor" (Imad, 2002).

In fact, the body that represents the director investor is specified only by the amount of ownership and shares it acquires. This permits individuals, group of related individuals, governments, private or public enterprises to operate in foreign countries as direct investors according to the amounts of capital invested and the regulations of the recipient country/entity (Duce, 2003).

Direct Investment Classification Categories

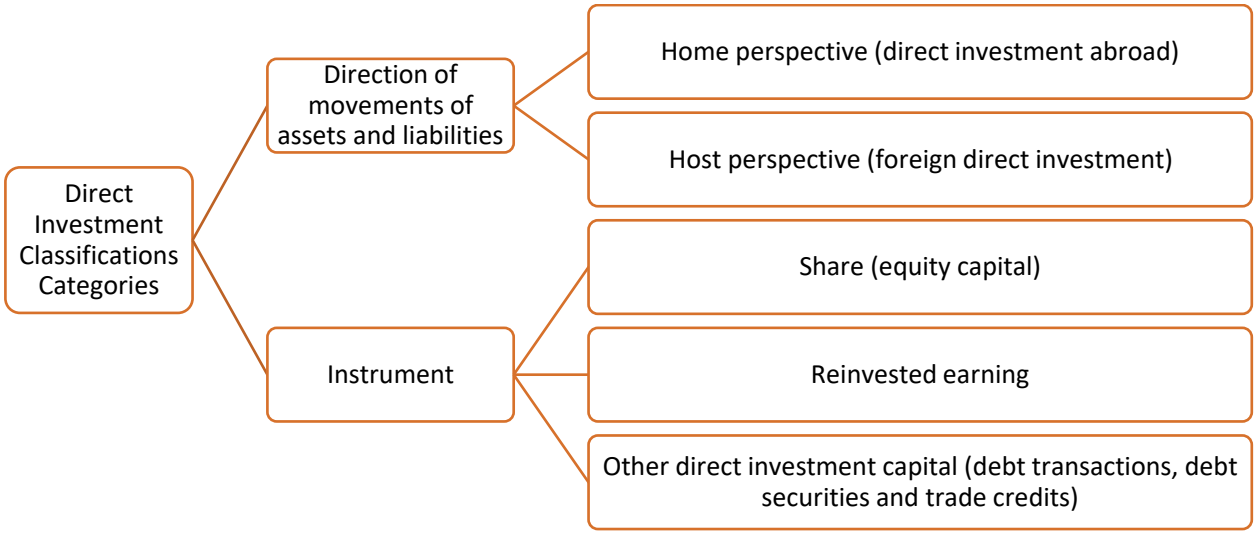


Figure 1:Main categories of the FDI

Figure 1 above illustrates the main categories of the FDI considering two main aspects: the direction of flow of the FDI and the instrument used for this movement.

I.Direction of FDI flow:

The direction of movement of the FDI between the host and the home affects the balance of payments of both (Duce, 2003).

On this regard it was found that the World Bank report classified countries into three categories according to the way their economies are affected by the FDI. The classification categories are:

- "Developed economies which includes: the member countries of the OECD (other than Chile, Colombia, Costa Rica, Mexico, the Republic of Korea and Turkey), plus the new European Union member countries which are not OECD members (Bulgaria, Croatia, Cyprus, Malta and Romania), plus Andorra, Bermuda, Liechtenstein, Monaco and San Marino, plus the territories of Faeroe Islands, Gibraltar, Greenland, Guernsey and Jersey.
- Secondly, Transition economies which include South-East Europe, the Commonwealth of Independent States and Georgia
- Lastly, developing economies which includes all economies not specified above" (*World bank overview*, 2021).

The World Bank classification is related to the direction of movement of FDI as the developed economies are the richest economies with high capital flows, and studying the FDI trends, it was found that they often play the role of the "Home" countries which has highest FDI out flows. In fact, two thirds of global FDI outflows are coming from OECD countries.

The label "Developed countries" indicates that despite their high capital capabilities most of the business opportunities are exploited making the ROI in it lower compared to other less developed markets. On the other hand, the developing economies are the poorest countries with high levels of raw

materials and unexploited investment opportunities, making them often playing the role of “host” economies and providing companies with a relatively higher ROI(*Foreign Direct Investment for Development Report*, 2002; Ari, 2006).

Emerging economies are countries which were previously host economies, but their economies and capital grew allowing them to send out FDI’s outflows to other countries as well while still working on attracting more FDI inflows. Their FDI outflows volumes are small compared to the developed economies (*Foreign Direct Investment for Development Report*, 2002).

(Note : all the following part about emerging economies is based on corporate finance institute, 2021 reference article)

Emerging economies are characterized by their rapid growth compared to the developed countries with growth percentages reaching 6% to 7% of the first compared to less than 3% for the latter. This high growth rates are accompanied by high productivity rates which is due to the lower labor costs which increase the employment level and in turn the productivity. Developed countries therefore usually start outsourcing the labor from developed countries to operate their manufacturing facilities creating international existence for the emerging counties and helping their exports to rise.

All these economic improvements increase the standard of living of the emerging economies compared to the developing economies and create a wider middle class that have access to better education which feeds in the labor force eventually completing the growth cycle and allow the formation of an open economy compared to the closed economy of the developing countries.

The closed economy of the developing countries is usually focused on a local market compared to the emerging economies market which leans towards international trade that helps in stimulating the

economic activity. Despite the positive effect of the open economies, however it leaves the emerging countries exposed to the risks of the financial changes including exchange rate changes, inflation changes and others. This is due to the fact that such economies are not as stable as the developed economies and therefore cannot absorb financial shocks.

Investors are attracted to the emerging economies despite their higher risk compared to the developed economies due to the higher returns that they offer.

Emerging economies can be divided into three segments which are:

1. BRICS: which are Brazil, Russia, India, China and South Africa. These countries contribute to over 25% of the world GDP and 40% of the world population. They are expected to be the match of the G7 countries in the future.
2. N-11 or next 11: they are expected to be the next BRICS according to measures such as political and economic stability in addition to investment regulation and quality of education. They include Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, Philippines, Turkey, South Korea, and Vietnam.
3. MINT: Which includes countries that shown rising growth rate and remarkable investment opportunities. They include Mexico, Indonesia, Nigeria, and Turkey.

II.Instruments of FDI

Scholars separate the host investors based on their goal into three categories (Imad, 2002)*:*

- Vertical FDI: which aims for the supply chain enhancement by utilizing the raw material of the host country in production expansion or acquiring more channels to reach the customers.

For the host country it is considered export enhancing investment.

- Horizontal FDI: which aims for the geographical expansion of production and requires a high level of product differentiation.

  For the host country it is considered import substituting investment.

- Conglomerate FDI: which includes both types (horizontal and vertical) mentioned above.

The instrument of the FDI shows how these monetary amounts were capitalized, either in the form of equity capital, debt securities and other capital contributions or earning which are reinvested in the host entity income statement or other direct investment capital represented in the form of coverage for the host company financial operation (Duce, 2003).

Determinants of FDI

The ability of a country to attract FDI depend on several elements such as the amount and type of resources the host country has, the stability of political situations, level of infrastructure available, availability of human capital and economy openness, etc. (Zhang et al., 2020).

Some literature refers to these elements as the “absorptive capacities” which are "…, Absorptive capacities include: (1), macroeconomic management (e.g., inflation and trade openness), (2). infrastructure (e.g., telephone lines and paved roads)., and (3). human capital (e.g., share of the labor force with secondary education and percentage of the population with access to sanitation)." (Chong and Ghahroudi, 2020).

However, it is worth to note that despite the existence of these elements, there are certain aspects that repel FDI, such as bad governance and high corruption levels and ineffective legal framework (*World Investment Report*, 2021).

As seen from the previous discussion, the FDI determinants may vary according to the different literature and case specificity, but they general revolve around specific areas which are the economic & political stability, the natural and human resources of the country and the legal and governance quality.

Figure 2 below is illustrating the main determinants of FDI and the corresponding literature denoting the relation (Chong and Ghahroudi, 2020).

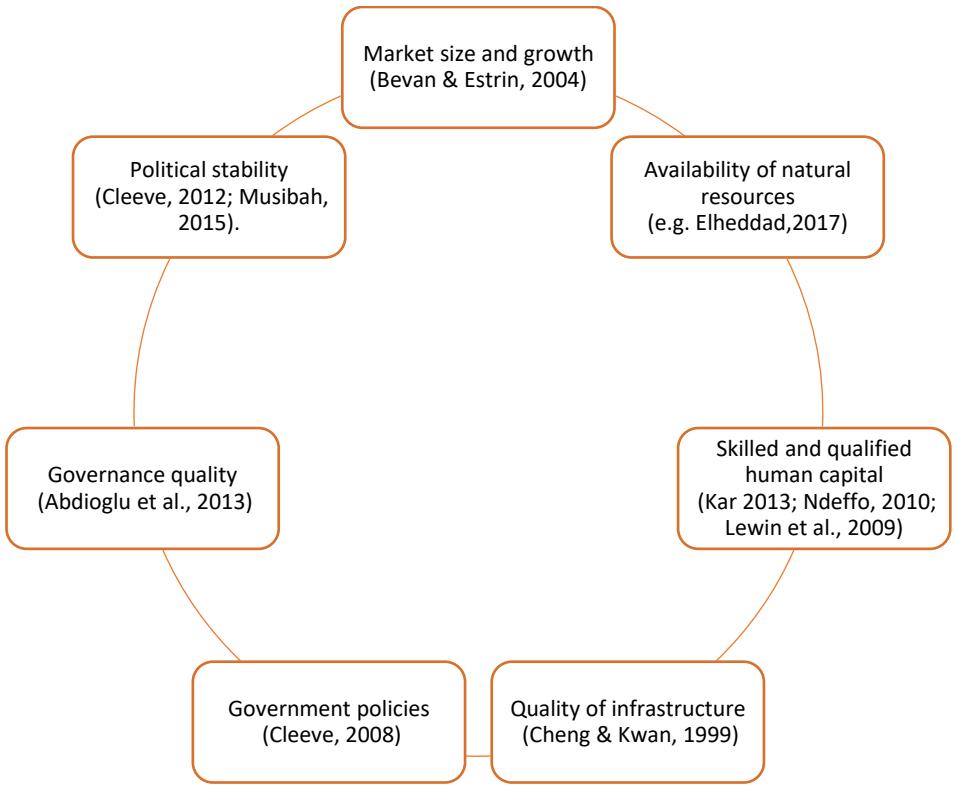


Figure 2:Main determinants of FDI and the corresponding literature denoting the relation, prepared by author

The effect of a chosen set of FDI determinants on the amounts of inflows:

Below is a discussion of a chosen set of FDI determinants and how the FDI react to their different statuses

1. FDI and Exchange rate:

Fluctuating exchange rate changes the cost of acquisition of the host country currency. If the host country currency suffered from a devaluation against the home country currency, it will increase the FDI to the host country as the investment cost will decrease.

Another point is that the value decrease of the host country currency reduces the cost of assets in it encouraging foreign investors to purchase them(Chong and Ghahroudi, 2020).

2. FDI and Inflation rate:

High inflation in the host country indicates a poor financial performance of the country governance and its central bank. It shows a high level of ineffectiveness of the monetary policy. As a result, a high inflation deters the FDI flow to the host country (Chong and Ghahroudi, 2020).

*D*espite the existence of some empirical evidence and studies that found no significant relation between inflation and FDI (Chong and Ghahroudi, 2020).

3. FDI and Political stability:

The Establishment of foreign Investments and FDI inflows is directly related to a high level of political stability and predictability (Chong and Ghahroudi, 2020; *World bank overview*, 2021; *World Investment Report*, 2021).

4. FDI and trade openness:

As stated by the neoclassical theory, trade openness increases labor efficiency and enhance the

technological development leading to a higher level of economic development which in turn acts as a magnet for new FDI which in turn brings supports technological development through technology transfer besides an economic boost due to the rising exports levels. Trade openness is evaluated by the dividing the summation of imports and exports by the country's GDP (Chong and Ghahroudi, 2020).

The difficult aspect lays in the measurement of the ROI of FDI, as the FDI are drawn into countries with higher levels of return. On the other hand, FDI's are attracted to developing countries which usually don't have a well-functioning capital market making it harder to accurately assess the ROI.

Literature have tied the ROI with the investment profitability measured in the form of marginal inverse product per capita as an indicator for the return on capital. The results of showed that GDP per capita is inversely related to the FDI while on the contrary a positive relation between GDP and FDI was found (Chong and Ghahroudi, 2020).

5. FDI and governance:

Recently, the attraction of FDI became an indicator for the health of a country's market and the wellbeing of its's governance system. This led governments to set up the most optimal conditions (regulations, policies, etc.). to make their countries appealing for investors and multinational corporations.

From a dissimilar viewpoint, it became interesting to understand how the multinational corporations choose their host countries as their choices indicate the governance status of the host countries and what is considered as ideal settings in terms of clear government processes, stable environment, and tolerable corruption. The higher the administrative costs resulting from bad governance or corruption, the less are the FDI inflows(Chong and Ghahroudi, 2020).

"As per *Samimi and Ariani (2010)* , there are three governance indicators that evaluate the governance in the MENA region (Middle east and north Africa) and are positively related to the volumes

of FDI inflows, which are political stability, corruption control and role of law" (Chong and Ghahroudi, 2020).

FDI Effect on The Economy

Introduction

Most of studies agree that the effect of the FDI on the economy depend on the specific characteristics of that economy and its ability to benefit from the injected investments.

The attractiveness of the FDI relays in that it does not only stimulate the economy, but also brings in cashflows, technology and growth to the economy of the host country. This encouraged countries to put in place measures that attract FDI such as subsidies and tax reduction to motivate investors and entice FDI (Sirag, Sidaahmed and Said Alim, 2018). Another reason why host countries seek FDI is that the fact that it creates employment opportunities which in turn contribute to the economic growth (Chong and Ghahroudi, 2020).

Alternatively, firms engage in FDI pursuing ownership expansion, location, or internationalization. These three reasons represent the pillars of the OLI paradigm (Zhang *et al.*, 2020).

FDI Effect on host countries

As stated earlier, FDI stimulate the economy of the host countries. The new investments come hand in hand with new technology that elevates the technological level with the country, in addition to the creation of new job opportunities that reduces the unemployment levels and transfers the new technology know how to the new employees. The new investments allow the host country to penetrate

the global markets through the new products while simultaneously elevating the competition levels inside the industry and therefore helping in its development (Moura and Forte, 2013).

All mentioned above reasons are considered positives effects of the FDI on the host economy, however there are some negative aspects that is highlighted by the current literature. In the coming parts we will discuss both aspects in more details.

Below is figure 3, listing the main effects of the FDI on the host countries' economies followed by a discussion of the details of each (Moura and Forte, 2013):

Figure 3:Main effects of the FDI on the host countries' economies, prepared by author and based on (Moura and Forte, 2013)

(Note: All the coming section details is in reference to (Moura and Forte, 2013) *unless mentioned otherwise)*

A. Transfer of new technologies and knowhow:

Firms that engage in FDI are commonly called multinational companies as they control assets in several different companies. As a result of they became a reason for technology dispersion. With the host countries being the main recipient of the transferred technology which in turn improves the firm's performance. In fact, some literature argues that the development resulting from the technology transfer is far more profitable compared to any other gains resulting from the financial investments. This as well helps the reducing the costs of multinational companies because of the increased productivity of its branches which makes them more competitive.

Nevertheless, this technological transfer can cause some negative side effects such as making the host country totally dependent on the multinational companies (MNCs) technology. This could lead to decline in the host country R&D research as the any technological shift would be unfavored by the MNCs. It also carries the risks of the host country being held up in an inappropriate technology to its specific circumstances because of MNCs misleading strategy.

B. Job creation and utilization of Human resources

As part of the technology transfer, new employees are hired and trained which in turn facilitates the development of the host country work force. Another knowledge transfer methodology is through the employee's observation of the MNCs operation. In fact, the literature highlighted that the labor force training enhances the productive capacity of the host country which is a major element in the economic development of the host country. Employees trained by the MNCs are later utilized in other local firms in which they transfer what they learned and elevate the industry development level.

The negative aspect of this is that the new technologies are often more automated, and this requires a fewer number of employees compared to the older technologies which leads to the redundancy of part of the work force and an increase in the unemployment rate. Another negative aspect is resulting from when the government relays totally on the MNC's for the development of the work force and cuts the budget allocated for education. This leads the highly skilled labor to leave the country and the work force seeking countries that offer education and better development opportunities.

C. Integration into global economy

The cashflows coming from abroad in addition to the economic growth and technological development that occurs to the host country are all elements that facilitate its integration into the global trade and economy. In fact, part of the knowledge transferred is the MNCs knowledge about internationalization, global marketing and business networking and operation management, all of which allow the host country firms to mimic the MNCs utilizing this newly gained knowledge.

Such knowledge is transferred to the host country firms through becoming suppliers of subcontractors to the MNCs *(Kokko,1998).*This could also allow the local firms to be part of the MNCs strategy and directly deal with other MNCs and gain direct knowledge about the international market. The (*Foreign Direct Investment for Development Report*, 2002)'s study highlights that the local authorities can support the internationalization by the development of infrastructures (particularly transportation) which in turn will assist the local firms in their international trade and allow them to distribute the country resources and raw material worldwide.

From a different perspective, a high level of integration with the global economy brings a great number of risks as the host country will become vulnerable to any issue that occurs globally and specifically issues related to the MNCs home countries .Issues such as raw material supply issues for

example will lead to a drop in the production of the MNC, but for the involved host country its effect will be even larger to include a reduction in the exports and even in the balance of payments and GDP. It is relevant to emphasize that some countries try to reduce such negative effects by putting policies through profit repatriation policies (*Foreign Direct Investment for Development Report*, 2002) or through royalty payment.

D. Increased competition

On top of the fact that FDI improves the industry development level in terms of production factors, it also signals that the country is a suitable investment opportunity for other MNCs. The new investing companies from abroad in addition to the improved level of local players rises the competition levels in the industry encourages the local firms to improve their products so they maintain their market shares. A portion of the negative aspects of this situation is that the MNC's will try to maintain its position in the market in face of the improved local firms by pushing the authorities to control the competition. A further negative effect is that the smaller local firms will not be able to survive the competition and be forced out of the market which will lead to a higher industry concentration and in the long run a decreased competition.

E. Firms' development and restructuring

Part of the development of the local firms that we discussed in the previous point lays in the need to operate in a different industry because of the entrance of the MNCs. The MNCs will not be affected by the industry entry barriers due to their more developed capabilities which in turn would end any existing monopolies in these markets.

An additional possible market change is in case the MNC's enters the market through mergers and acquisitions in which they will enforce their own strategies and management styles on the firms they

acquire which in turn will alter the operation of the other firms in the industry which will mimic the optimal operation that the MNC is using, raising their efficiency as well as the acquired firm (*Foreign Direct Investment for Development Report*, 2002).

It is important to highlight that the restructuring approach differ according to the type of FDI investment and if it represents horizontal or vertical investment. For example, vertical investments include a separation process within the value chain and as a result the outsourcing of part of the value chain activities to benefit from the varying cost of inputs among different countries. The host and home countries resources determine if the vertical integration will be forward vertical integration (raw material suppliers from the host countries) or backward (MNCS find its own inputs suppliers to serve the parent company). Vertical integration of both types geographically separates the headquarters with its high skilled labor and the low skilled labor-intensive production activities (Protsenko, 2003).

Horizontal FDI involves mimicking the structure of the parent in other countries for the purpose of geographical expansion when its costly to export to the foreign market due to high transportation and/or cost of trade barriers. The existence of both MNCs and local firms in the same market creates three possible scenarios which may lead to the domination of horizontal FDI: the first is that the MNCs and the horizontal FDI reduce trade inflows and as a result the market becomes served by local trade, and the second is that FDI dominates the market specially if the import costs are high compared to the investment costs, and the third is that FDI will dominate in big sized markets which absorbs high volumes produced by large production plant that usually have lower fixed costs. (Protsenko, 2003).

Recently a new form of vertical FDI appeared in which the MNCs produce in a host country and then sell the output to a third country different from the parent or host markets and thus forming a mix

between vertical and horizontal FDI with the host country acting as an affiliate for the home/parent MNCs (Protsenko, 2003).

FDI and host country economic policies

Lastly, we discuss a major negative aspect of the FDI on the host economy. The entrance of the FDI and the unpredictability and instability of its inflows could destabilize the economy and in turn hinders the implementation of the economic policies of the host country government.

The power that the MNC's gain over the economy reduces the local authorities' power and puts them under the influence/pressure of these firms. Such influences usually put in its interest the profitability of the MNC's on the expense of the host country stability and development. In fact, *Zhang (2001)* argues that FDI could be seen as a method by which the home "developed" countries control the host "developing" countries (Moura and Forte, 2013).

FDI Effect on Home economies

As examined above, the FDI brings high profit to the investing firms, however for the home economies the effect of the FDI outflows depends on the investment specific details such as investment type, host country, amount of FDI outflows, etc. The impact can be noticed in the balance of payments; exports amounts and production levels.

Some negative impacts also arise from the lost investment opportunity for the home country which appears in the employment rates and again the balance of payments. Investment companies mostly try to outsource the labor-intensive operation to the host countries (which has a lower labor cost), while keeping the most complicated operation in the home country with the highly skilled labor (Ari, 2006)

FDI Recent Statistics:

Covid- 19 pandemic resulted in a sharp decline mounting up to 35% in the FDI levels worldwide, as illustrated in the below figure 4, (FDI inflows, global and by group of economies (2007 -2020) - (World Investment Report, 2021). Such a decline which did not even occur during the 2008 financial crises.

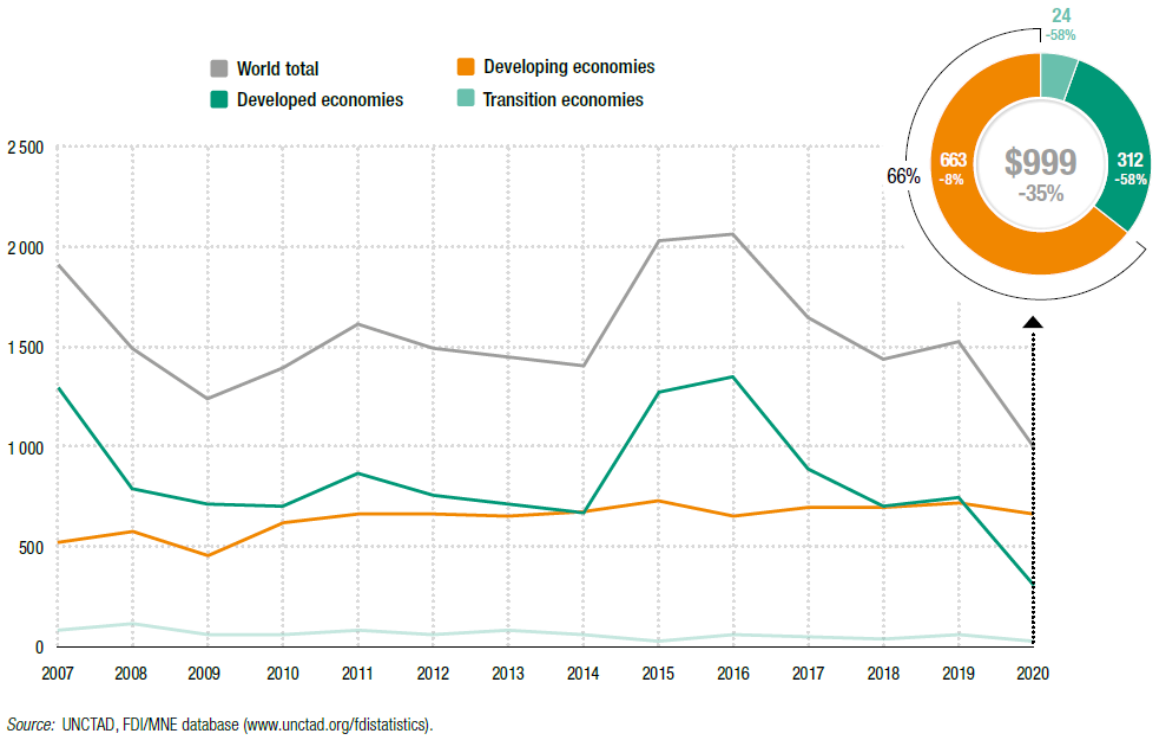


Figure 4:FDI inflows, global and by group of economies (2007 -2020) - Source: World Investment Report, 2021

The lockdown halted most of the ongoing project and the high uncertainty of the economic situations and expected recession made the majority of the firms reluctant to get involved in new projects. Developed economies were affected the most by this decline with an average of (-58%) during the first half of 2020, while developing economies whose high levels of cashflows absorbed part of the decline were affected by the lowest percentage (-8%) during the same period.

FDI decline levels varied also on a regional level with Europe (-80%) and Latin America& the Caribbean (-45%) suffering the highest decline levels among the developed and developing economies

respectively, side to side with the transition economies (-58%) as shown in the below figure 5, (FDI inflows by region 2019 &2020), (*World Investment Report*, 2021).

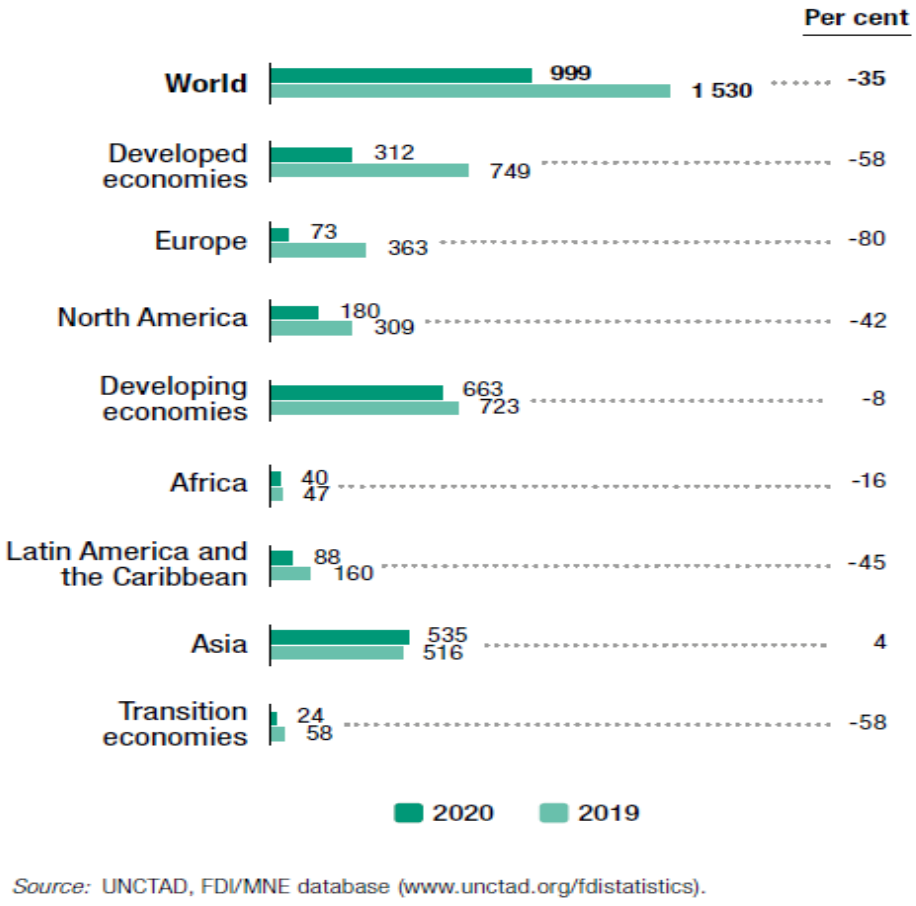


Figure 5: FDI inflows by region 2019 &2020, Source: World Investment Report, 2021

FDI In Africa:

As seen in figure 5 previously, Africa's share of the FDI is among the least worldwide (0.6% of the total world FDI flows excluding south Africa).This happens even though Africa is known for its abundant and cheap resources in addition to its immature markets .This is mostly due to the fact that despite the possibly high ROI, the investment climate is not encouraging.

The political instability and in some cases sanctions, the high taxes and inconsistent economic policies

and weak legal systems all represent risks that discourage external investors not to mention the lack of adequate infrastructure and low quality of public service .

However, it is worth to highlight that Few countries managed to escape from this trap and attract FDI such as Senegal, Mali, Mozambique, Namibia, Rwanda, and Ethiopia. This was achieved through stringent government policies that focused on appealing to external investors (*Foreign Direct Investment for Development Report*, 2002).

FDI and Sanctions:

Definition of Sanctions:

Economic sanctions are a tool used by a “sender” country to force another “target” country to alter some polices or end some activities that the sender country does not approve. Economic literature describes sanctions as "deliberate, government withdrawal, or threat of withdrawal, of customary trade or financial relations" (Hufbauer et al., 2007)”. “Sanctions are an economic weapon for countries to fulfill their foreign policy goals “(Petrescu, 2016).

Sanctions severity level varies from the simple halt of diplomatic relations up to war initiation.

Sanctions imposition most common reasons are human rights violation, and nuclear weapons manufacturing. Sender countries are usually the largest most developed such as EU, or USA, while the targets vary in size and power starting from North Korea, India, and Pakistan up to Greece, Sudan, and Liberia (Petrescu, 2016).

Sanctions include a combination of export sanctions, financial aid sanctions, freezing of financial assets which is denoted by financial sanction, or all applied simultaneously. The impact of the sanction is

elevated by the level of international support for its imposition. Such sanctions are often denoted for by "multilateral sanctions" vs "unilateral sanctions" which are imposed by a single sender (Petrescu, 2016)

Sanctions and Informal economy:

Informal economy often thrives in the target countries upon the imposition of sanctions as a defense mechanism that allows the target country to reduce the sanctions impact. This can occur through several methods such as increasing the export levels by smuggling, conducting transactions through informal financial intermediaries and utilize a "black market" for the purpose of sanctions goods trading.

However, the black market and informal economy set up comes hand in hand with a rise in corruption levels and related crimes in addition to a general deterioration in the legal system and policies implementation of the target country. This deterioration is directly reflected on the companies operating in the target country companies in the form of a rise in their operation cost due to the increased corruption and legal obstacles (Petrescu, 2016).

The size of the informal market is dependent on the severity of the regulatory distortions. The higher and the more complex the regulations the greater the accompanying costs both direct such as fees or bribes or indirect such as losses of time and effort navigating these regulations. Other factors that determine the size of the informal market are the quality of governance, the trust of the public in the public institutions, taxes morale, corruption levels and ability of the government to provide for the needs of the population (Petrescu, 2016). Following is table 1, listing several types of sanctions and a brief description of their effect (Petrescu, 2016).

Type of sanction	Effect
Cut in financial Aid	Reduce investment in human capital
Cut in trade between targets and senders	• Encourage smuggling • Increase unemployment • Shift of labor to the informal market • Deterioration of social service leading to lower trust in government
Cut in imports	Higher costs of production
Cut in technology aid or trade	Increased informality
Any form of Sanctions	Reduced press freedom of the target as government is trying to hide the sanction negative effect

Table 1:Types of sanctions and a description of their effect, prepared by author, based on Petrescu 2016

Sanctions and the FDI

The empirical evidence shows two patterns when it comes to the behavior of the global FDI on the host country who is the target of United states sanctions imposition.

The imposition of the sanction either leads to an increase in the global FDI inflows to the target country as other non-USA firms view this as an opportunity to fill the gap in the market happening due to the absence of the US MNCs, or it could lead to a decrease if the remaining countries and their firms decided to treat the target country in a similar way to the USA. This attitude is dependent on the ways other countries and firms view the reasons and logic of the imposed sanctions (Lektzian and Biglaiser,

2013).

If USA managed to signal to the world that the sanctions imposition was due to the fact that the target country is a risky investment environment, then most of the global MNC's will be reluctant to invest in it leading to a drop in the FDI inflows to the targeted country. Still, if the opportunity in the target company is greater than the possible risk, then most MNC's will be eager to take over the US MNC's in the target country market (Lektzian and Biglaiser, 2013).

The literature argues that the less severe the sanctions, the less serious it appears to the global market and as a result, the more positive effect it has on the FDI inflows of the target country ((Lektzian and Biglaiser, 2013). It also highlighted the negative effects of the severe USA sanctions on the FDI levels of the target countries and the high drop in its inflows. In the second case, it is noticed that the trade shifts of the global FDI are aligned with USA shifts .As a result, we can conclude that the imposition of US sanctions can influence the FDI inflows to the country targeted with those sanctions (Lektzian and Biglaiser, 2013) but the direction is ambiguous a priori.

Conclusion

The increasing globalization levels have made the FDI an element that cannot be neglected in the analysis of the economic development of countries. In addition to being a capital source, FDI works as a simulation tool for the development of different industries promoting the competitive advantage of its' players and giving them an opportunity to penetrate global markets.

FDI are affected by a number of factors that include the economic and political situation in the host country and in turn it affects the economic growth of that country in positive and sometimes negative ways.

FDI is affected by sanctions and the existence of informal economy that results from the imposition of sanctions, however the intensity of this affect is dependent on the sanctions severity and how the global market interprets it.

Chapter Two: Sudan Political and Economic Background

About Sudan:

Country overview

Sudan is a country that lie in the northern part of Africa with a population of almost 46 million spread over an area of 1.9 million square kilometers. Sudan is considered a “young country” with 41% of the population under the age of 15 (*World population review*, 2021).

Figure 6 :Map of Sudan

The capital of Sudan is “Khartoum” with almost 13% of the population living in It. Khartoum lies at the intersection point of the Blue Nile and the White Nile who join at the “Mogran” forming the Nile

(figure 6), the second longest river of the world and one of the greatest resources of Sudan as country (Economist Reports, 2021).

The weather in Sudan in hot and dry most of the year with temperatures reaching up an average of 42 C degrees at highest in May and 26 C at lowest in January. The rainy season continues from May to October. Despite the several tribal languages that Sudanese people speak, the main languages are Arabic and English.

The main currency is the Sudanese pound which is currently equivalent to (1 USD: 500 SDG) (Economist Reports, 2021).

Sudan Main Resources and Current Economic Indicators:

Besides the river Nile, Sudan acquires the 2nd largest livestock population in Africa at an average total number of 41.6 million heads. 90% of which are owned by nomads while the remaining 10% are part of industrial schemes near Khartoum the capital which are aimed at covering the market needs for milk and processed products (Wilson, 2018).

Sudan is also known for its fertile agriculture land and agricultural activities which contributes to around the third of the country's GPD (Economist Reports, 2021). Sudan had "AlGizera irrigation scheme" - established in 1912- which spread over 2 million Acres of land growing high quality cotton putting Sudan as the top producer of cotton in the world. The country is also the second largest producer of sesame seeds exporting 13% of the total world trade volume, with an average of 296 thousand tons per year (Gro intelligence, 2017)

Sudan is the largest producer of Gum Arabic and contributing to 80% of the global trade volume with exports of an average of 25000 tons per year (IDE JETRO, 2021). While Sudan groundnut production is one of the 5^{ths} largest in the world with a total volume of 1.83 million metric tons per year (Unicef, 2019).

All these contributed to Sudan GDP which worth was 26.11 Bn USD according to the world bank 2020 estimate. While the average FDI for years (2003 – 2021) was 401.39 reaching a peak of 1565.18 million USD in 2006 and a bottom of -390.2 Mn USD in 2011 (Trading Economics, 2021).

Sudan Background Analysis

Phase 1: Sudan before both separation of the South, Oil discovery and sanctions imposition

- *Political and Legal:*

  All the following section regarding the political and legal situation in Sudan is in reference to (Berry, 2015) *unless mentioned otherwise*

Sudan was under an Anglo – Egyptian colonization from 1899 up to 1955, with Britain controlling most of the governmental responsibilities on behalf of Egypt.

Sudan gained its independence in 1956 and since its independence and up to 2011, Sudan was known as the country of the million square miles, the largest country in Africa and the promised breadbasket of the world. These hopes were hanged on Sudan unique water and land resources which were spread along its borders from “Nemoli” in the far South up to “Dongola” in the far North.

After its independence Sudan was ruled by changing governments from civilian to military. Following is table 2 listing the government, durations of rule and the highlights of their government events:

Leader / Government	Type	Duration
Alazhari government with him as a prime minister	Democracy under a transitional constitution and a parliamentary regime	1956 -1957
Main events	• Claimed Sudan independence from the British colonization • Sudan Parliament was divided into three main parties: al Umma, PDP (people democratic party) and NUP (Nile unity party) • During this period USA signed an aid agreement providing Sudan with needed FDI and technical support for development and economic diversification away from being dependent on cotton only as a source of income	
Abdallah Khalil coalition government between “al umma and PDP”	Coalition government	1957 -1958
Main events	• During the same period, the country suffered a poor cotton harvest and low prices which deprived the country and led to the application of economic restrictions that was not well received by the people. • Al umma branch of the government encouraged the reliance on foreign aid while the PDP opposed that under the fear that it will lead to unwanted foreign influence on the freshly liberated Sudan	

	• In 1958 Khalil had a technical assistance agreement with USA despite the disapproval of the PDP party • Parliament corruption in addition to unwise decisions by Khalil (such as import restrictions and offering cotton at a higher price than the global, leading to low sales) all led to the people disappointment in the Khalil government • Egypt criticized Khalil, and imposed a ban on cattle imports from Sudan, increasing the financial pressure and people anger	
Abbud Military Government	Joined Military and Al Umma party coup (prepared b Khalil & Abbud)	1958-1964
Main events	• The country became ruled by the military instead of civilian politicians under a body called “the supreme council of armed forces” • Abbud promised to solve the issues with Egypt, the biggest of which was the distribution of the water shares of River Nile • The people resented the military government. The resentment grew with the government failure in improving the economic situation despite solving issues with Egypt and stabilizing the cotton prices	

	• Three military coup attempts occurred with the aim of replacing Abbud with a more popular government but failed. The attempts were supported by Sudan Communist Party (SCP) • Abbud tried to "Arabize" the South of Sudan, dismissed the foreign missionaries, and closed the parliament to stop the Southern politicians complains. These actions restarted the armed fights between the government and the repels of South Sudan	
Sir al-Khatim al-Khalifa, as prime ministe of a transitional civilian government Followed by Mohamed Ahmed Almahjou and Alazhari Coalition	A civil strike all through the country "October revolution"	1964 – 1969
Main events	• Riots continued for days, and Abbud used violence in attempt to end them, resulting in many deaths • Abbud then dissolved the government and the Supreme council of armed forces • Strike leaders chose Sir-Al khatim to act as a prime minister working under the transitional constitution of 1956 with the aim of forming a coalition government that include all parties • South Sudan was well represented in the parliament by two parties, Sudan African National Union (SANU) and (Southern front)	

	• Elections were scheduled to be in 1965, with the parliament role to prepare a new constitution for Sudan, however in South Sudan repels who were against the North government continued to fight making the security situation unsuitable for the establishment of election • The government split between postponing the elections so the whole country can vote or making it in the North only. This disagreement led to the resignation of the government and an incomplete election was made and was boycotted by some parties such as PDP • The result of the election was a coalition where the leader of al Umma party (Mohamed Ahmed Al -Mahjoub) was elected as prime minister and for head of state Alazhari (NUP leader) was chosen • The focus of Mahjoub government was to solve the South situation through crushing the rebellions by force and remove the communists from leadership positions through dismantling their party and removing its members from the parliament • The Umma–NUP coalition failed as the two parties disagreed on whose representative should manage Sudan external affairs. The government then was Led by Mahjoub under the lead of the

	umma party leader at the time, Sadiq al Mahdi who became the prime minister • Despite their efforts, Neither Majoub nor Alsadig were unable to make peace with the South due to the continuous issues in the Sudanese parliament • The communist organized a failed coup in 1966 • In 1967 the PDP and NUP formed (DUP) or the democratic unionist party which was led by Alazhari	
Jaafar al-Numeri military Era	Military coup seeking the power under the claim that civilian politicians slowed the decision-making process and did not provide solutions for Sudan Issues	1969 - 1985
Main events	• The leaders of the coup formed the RCC or revolutionary command council which managed Sudan under al Numeri leadership • The RCC banned all political parties, suspended the transitional constitution, started a “nationalization” strategy, and arrested 63 politicians and forced senior army officers to retire • The 10 members of the RCC held all important positions in the state	

	• The RCC also founded a democratic republic to Develop Sudanese socialism • The minster of supply was a John Garang, a Southern (one of two in the government) and later he became the minister of Southern affairs • The greatest threat for the RCC was al Ansar religious group and conservative force who were calling for a democratic government and as a result a fight arose between them and the government in 1970 in which the government killed most of them and exiled Sadig al mahdi to Egypt as he was the next in line to lead al Ansar • Following that it was the communist turn to be removed out of the government, by taking control over their trade unions and organizations and arresting their leaders • The SCP organized a failed coup against al numeri in 1971, after which the members of the party were arrested • Al numeri then put in a place a provisional constitution providing a presidential government instead of the RCC and putting him a s a president for six years term	
Abd alrahman Siwar Aldahab	Military Coup	1985 - 1986
	• The increased food prices and lack of gasoline and skyrocketing transport cost pushed the Sudanese people to go on strike again	

Main events	• Al numeri fled to Egypt seeking refugee • Siwar Aldahab formed a transitional military council with 15 members • Al numeri constitution was suspended, and his secret police body was dissolved, and political prisoners released • At the time Sudan international debt was 9 billion USD and the projects funded by IMF and World bank were put on hold and most factories were working with less than 50% capacity (more details on this in the economic analysis) • Agriculture products output levels was half of the 1960 levels, threating South and west Sudan with famine • Al Dahab government was incapable of solving all these and refused the IMF economic measures leading to the latter declaring Sudan bankruptcy • The inflation continued to rise, and the government failed in getting international food aid. Half a million people died of hunger • In 1985 a civilian cabinet was established due to the TMC efforts and the alliance of professional and trade unions and despite it included three Southerners, it failed to gain the acceptance of the Southern who believed that the TMC policies are an extension to al Numeri policies.

Al Sadig AL Mahdi coalition government	Democratic elections	1986 -1989
Main events	• By this point, Sudan had 40 registered parties all planning to take part in the country politics. These parties included a wide range starting from the revolutionary socialism up to the national Islamic front (NIF) led by Hassan AL Turabi and representing the aspirations of the Muslim brotherhood • Al Dahab conducted the general elections in 1986 in which the South did not participate due to the civil war. Majority of the seats were won by Al Sadig AL Mahdi (al umma party) followed by Mohamed Uthman Almergani (DUP) then AL Turabi (NIF) • Al Sadig failed in ruling Sudan, leading to the spread of corruption, scandals, rivalry, and political instability • Alsadig dismissed the government after one year and tried to form other coalition governments which had the same issues as the first one. Issues in which Al-Mirghani (DUP) and al-Turabi (NIF). played a major role in their instability. This appears clearly for example when the Al Sadig and Al Mergani signed an agreement to cease fire in the South, and to hold of the application of Shariah in the South and lift the state of emergency. when Al Turabi disapproved the agreement, and declared his resignation from the coalition government	

	• In response, AL Sadig dissolved the government in 1989 forming a new coalition that al Sadig claimed that it will lend the civil war by the application of the previously mentioned agreement in addition to provide food to end the famine. • The NIF refused to participate in this new government • Alsadig failed to make these promises true, and it was the end of his government by the hands of Omar AL Basheer military coup

Table 2:Different governments of Sudan, durations of their rule and the highlights of their reign from 1956 to 1989 prepared by author and based on (Berry, 2015)

South Sudan Conflict

(Note :All the following section details regarding South Sudan Conflict are in reference to (Berry, 2015)*unless mentioned otherwise)*

The tension between the North and the South started very early. The discrimination that the British colonization put it seeds through limiting the development and the services to the North on the expense of the South enhanced the resentment that the South Sudanese felt when the British administrators in the South were replaced by Northern ones instead of Southern one after the independence. The turn "Arab imperialism" was a term common between the Southern politicians at the time.

The civil war started in 1955 when a Southern military unit called Equatoria corps hid inside a forest in "Torit" during a fight with the Sudanese military. By 1960 half a million people were dead and hundreds of thousands were refugees and fugitives.

In 1969 Israel supported the South Sudanese with weapons, supplies and training and the rebels power continued to grow and the government operation towards them went through ups and downs.

1969 coup in Khartoum during the peace-making efforts, however as those failed, the attacks increased again and the number of troops from Khartoum reached 12000 with the Soviet Union supplying the Sudanese government with various types of weapons and military vehicles worth 100 -150 Million USD.

Al numeri planned to grant the South regional self-government and liberty of economic development for the aim of reaching peace. This was discussed and agreed upon in Addis Ababa negotiations in 1972. The deal was to nominate a regional president for the South under the national president of Sudan and the formation of Southern regional assembly be elections and the armed military of South Sudan will become part of Sudan Armed Forces (SAF).

The agreement was approved, and a cease fire was established, and steps were taken to ensure the safe returns of the South Sudanese refugees.

Following that, Al numeri tried to reassure the Muslim groups in the North and gain their loyalty. He did that by trying to highlight that Islam is the number 1 religion in Sudan and that Islamic" Shariah" or legislation is the source of all the government legislation.

These efforts did not stop those Islamic groups from uniting outside Sudan under the leadership of the exiled Al Sadig Almahdi forming the "National Front" movement. This movement was the seed of the Muslim brotherhood in Sudan.

Al numeri policies in addition to increased power of the military in the government created unfavorable effect within the people. On top of this, the tension started to increase in the South due to food shortages. The people in the North also saw the peace agreement as a "surrender".

Several failed coups occurred in 1973,1974,1976 with the last one led by the national front movement during which 700 rebels were killed in Khartoum and more arrested.

In 1977 Al numeri was elected for a second six-year term and in early 1977 Al numeri and Alsadig Al mahdi signed an agreement to allow the opposition to national life in Sudan in return for dissolving the national front movement. The agreement included restoration of civil rights and releasing the political prisoners.

In 1978 and during the national elections, the DUP won half of the seats in the people's assembly and weakened monopoly of SSU on the government. In response Al numeri followed a more dictatorship approach to maintain his presidency. He prisoned all his opponents without trials and dismissed all military officers who are not loyal to him.

In 1983 and with the aim of demolishing the growing power of South Sudan by redividing it back into three divisions and then in what is called "September laws" he claimed Shariah as the basis of the legal system in Sudan and the laws were to be applied on everyone disregarding their religion.
This was the final straw that led to reigniting the war in South Sudan by the end of 1983.

In 1986 Al Dahab attempted to solve issues with the South, but he was unwilling to lift the shariah imposition which convinced the South leader (John Garang) at the time that the North is seeking suppress the South; the fighting continued.

In 1988 Al Sadig and Al Mergani signed an agreement to cease fire in the South, and to hold of the application of Shariah in the South and lift the state of emergency.

- *Economical:*

In this era, most of Sudan GDP was revolving around the agricultural exports of Cotton, Gun Arabic, Ground nuts and sesame seed in addition to oil production, producing sesame oil and ground nut oil. However, the oil seed exports were monopolized as well.

Sudan had “AlGizera irrigation scheme” - established in 1912- which spread over 2 million Acres of land growing high quality cotton putting Sudan as the top producer of cotton in the world. However, between 1970 and 2014, the government applied a strategic plan that involved replacing the cotton with sorghum, wheat, and groundnuts to cover the country’s demand (Gro intelligence, 2017).

The same scheme pushed a horizontal expansion for Sudan crops which reflected negatively on Sudan livestock, as more pasture areas were seized to be converted to agricultural projects. This in addition to the rising conflict in Darfur, contributed to the low level of development of the livestock policies (Wilson, 2018).

Gum Arabic exports was monopolized by a governmental public company called “Gum Arabic Company GAC” which was established in 1969 with the technical aspects under the supervision of the ministry of agriculture. 70% of the product was then exported (unprocessed) through “international agents” for the purpose of processing. The processed Gun Arabic was then sold to food manufacturing companies all around Europe and US.

In 2009, the government ended the monopoly trading of Gum Arabic in Sudan (IDE JETRO, 2021). Agriculture remained the biggest element in Sudan economy with the biggest percentage of the GDP resulting from its outcomes, however the war, the poor management and lack of transport infrastructure, prevented the full deployment of agriculture as a source of income (Berry, 2015).

The main agricultural product for Sudan in this era was cotton, which was grown in “Algezira irrigation project” mentioned earlier, however its production declined with the new government strategies during the eighties of the nineteenth century and due to the international drop in prices during the same period (Berry, 2015).

At this point (1996) Sesame production and manufacturing took the lead. Sesame seed oil production

was monopolized under the management of The Sudanese oil seed company which was established in 1970 and up until 1992 when the government ended the monopoly with the aim of joining the world trade organization. The company also produced ground nut oil (Berry, 2015; Gro intelligence, 2017).

Sudan GDP and Economic Indicators

(Note :All parts of the following section regarding the Sudan GDP and economic indicators are in reference to (Berry, 2015)*unless mentioned otherwise)*

During the 1970s, Sudan inflation was growing at percentage which is aligned with the global price surges (9% to 10%), however starting from 1973 the inflation rates started to climb reaching up to 74% in 1989. This rise was a result of several factors such as shortage of consumer goods which the government tried to mitigate by increasing the money supply to cover the financial deficit, another factor in addition to an increased rate of borrowing in the private sector and a supply problem caused by the lack of transport infrastructure.

During the nineties Price rise continued by almost 100% per year reaching a peak of 130% in 1996. In 1997 an International Monetary Fund (IMF) program which is usually applied to facilitate international financial stability.

The program was implemented along with other central bank policies for the purpose of controlling this inflation and it worked to some extent lowering the inflation rate to 47% in 1997, then lower than 20% in 1998 & 1999 and less than 10% during the 2000s.

One of the government policies implemented during the 1970s was the “Sudanization” program, aimed at the expansion of the public sector by nationalization and confiscation. The public sector expanded; however, it became a financial liability due to the poor management. The central bank

of Sudan continued to provide subsides and loans guaranteed by the government to “revive” the public institutions which were involved in project beyond the capability of the currently available resources.

In 1990 the government had to stop the “Sudanization” and started encouraging privatization and FDI. This is clear in the examples mentioned above in cases of gum Arabic production and sesame oil production when the government ended the monopoly and encouraged the private sector contributions. The remaining public sector was dispositioned by a bill in 1990. 190 public corporations were sold, 72 were disposed or liquidated and less than 20 were purchased by the private sector. An example of a successful privatization story was “SudaTel” or Sudanese telecommunication company.

In 1997 Sudan also suffered from the imposition of economic sanctions on Sudan by USA which took Sudan out of the international money markets. These sanctions in addition to the civil war between Sudan and South Sudan affected the way the privatization was applied, and the amounts of compensations offered to the workers and the possible buyers of the publicized institutions.

Other factors that affected the quality of the privatization process was the lack of competent technical experts to value and manage the process in addition to the fact that all the possible investors were aware of the companies’ debts and the huge investment size required for it to operate profitably. The resistance from the labor unions was another element that hindered the smoothness of the privatization process. There were also corruption allegations targeting senior government staff and claiming they used their influence to get the assets at unfair prices.

Despite all the above, FDI began to rise in 1990 and after the privatization act and continued to increase as the government policies were amended into more investor friendly versions in 1993,1996 and 2000. The amendments offered incentives and government support for new investors.

- *Technological*

All parts of the following section regarding technological analysis is in reference to (Berry, 2015) *unless mentioned otherwise*

During the colonization period, Britain focus was to produce and utilize Sudan primary products only for the purpose of export, a strategy that reflected negatively on the development of manufacturing in Sudan. The local demand for manufactured products was met through the usage of very basic traditional and mostly manual manufacturing setups.

Throughout the 1930s and due to the huge cotton production from al Gezira scheme, cotton gins and cotton seed oil pressures were established.

WWII also contributed to the industrial development for the purpose of substitution for the lost imports such as soap and fizzy drinks. Nevertheless, those local production setups did not survive the competition with international brands after the end of the war.

The end of the war also brought FDI that invested factories that produced processed meat, cement, and a brewery.

After its independence, Sudan government supported the advancement of all private sector industrial development through the establishment of "Approved Enterprises (Concessions) Act of 1956" which supported both private sector and FDI investments. Unfortunately, both private sector and FDI were reluctant to invest or/and lacked the needed resources to invest. As a result, the government decided to develop the manufacturing sector through governmental efforts and national investment.

The government founded "Industrial development corporation" in 1962 for the purpose of managing the newly founded industrial plants which included a tannery, two sugar factories, fruits and

vegetables canning facility, milk processing plant plus a date processing plant and an onion dehydration facility.

Following these efforts, the private sector stepped in by making textile and cloth factories, and consumer products factories such as soap, fizzy drinks, shoes, and flour. On top of this, the private sector contributed by building "Port Sudan oil refinery" in 1964, which constituted one of the highest private establishments in which both internal and external investors contributed. By this time, more than 50% of the private sector investments were from foreign sources.

In the following years (1969 -1972), the government contribution to the industrial sectors continued to rise at a rising rate (due to the nationalization strategy discussed earlier) while the private investments started to drop. A drop that the government (under the leadership of Jaafar AL numeri at the time) tried to mitigate by putting in force investment-friendly policies such as the act of 1972 which supported the development of industrial investments and the following revision in 1974.

1970s major manufacturing facilities were built with FDI from the Gulf. The facilities included additional sugar factories and tanneries on top of more than 20 textile manufacturing plants, as well as the first fertilizer plant established via a joint venture with USA which was operational by 1986.

1980s witnessed a decline in the manufacturing output of all the facilities to the degree that by 1998 ,85% of Khartoum factories were operating under capacity (some factories were operating at 10% – 30%) despite the availability of the high quality and local supply of raw materials.

The main reasons for this decline were lack of energy sources and specifically fuel. Frequent power cuts were common, and utilization of power generators limited the operational capacity of the factories.

The government lacked the foreign currency necessary to purchase fuel which only made the situation worse. By that time, it was common to have power cuts in Khartoum for several hours per day

on daily basis.

The low capacity increased the operation cost, lowered the productivity, reduced the number of trained human resources, and further slowed the sector development.

The search for oil and gas started since the 1960 at the red sea region. Some quantities were found in the mid of the 1970s but not at an adequate level to be commercialized. The natural gas reserves were estimated by 3 billion meters cube; however, it was not successfully produced up to 2010.

The first electric power station was built in 1908 in Khartoum by a private company. In 1925 the currently operating system was established under "Sudan light and power company", a British founded and operated company. It was later named NEC or National electricity corporation after Sudan gained its independence.

1925 also witnessed the construction of "Sinnar "dam and later in 1966 the "Roseries" dam whose original purpose was irrigation, however the growing electricity demand made it feasible to utilize them to generate hydropower.

Sinnar" hydropower station became operational in 1962 followed by a bigger station at "Roseries" in 1973.

Sudan went through a severe drought in 1982 up to 1985 which caused a famine in the western and South regions of the country followed by a flood and a locust attack in 1988 (Elbadawi, 1992).

Phase 2: Sudan during the economic boost of the oil discovery and the first imposition of sanctions

- *Political and Legal*:

(Note: All the following section details regarding the Political and legal analysis are in reference to (Berry, 2015)*unless mentioned otherwise)*

Omer AL Basheer and his colleagues suspended the constitution and made the same steps of their previous military coups “traditions” starting by arresting the political opponents and prohibiting the political parties on top of restricting the press freedom.

The new accusation that they used to criminalize people was not being “Sufficiently Islamic”. In 1990 they established the revolutionary command council (RCC) which became Sudan legislative body with Al Basheer as its chairman in addition to being the prime minister, minister of defense and commander in chief of Sudan armed forces.

The newly founded RCC was clearly under the influence of national Islamic front party leaded by AL Turabi, who despite not having an official post in the government, had wide powers over it.
In 1993, the RCC was dissolved after “appointing” AL Basheer as Sudan president. In 1996 an election happened to confirm him as president and establish a parliament that is dominated by the “National congress party” (NCP) which was the updated version of the NIF with AL Turabi acting as the assembly speaker. Sudan remaining political parties refused to participate in what they considered an illegitimate process.

The government strategy at this phase was formed over three pillars: creation of Sudan “Islamic republic”, Ending the South Sudan war through force and gain control over the country through force. This point became a turning point in Sudan international affairs as from now on it became labeled with being a terrorist supporting country. This occurred a s a result of Al Turabi government allowing Osama bin Ladin to shift his headquarters from Afghanistan to Sudan from 1991 and up to 1996.

In 1993 USA made the decision to put Sudan on the list of States that sponsor terrorism.

In 1995 Egypt accused Sudan with the failed attempt of assassination of the Egyptian president Hosni Mubarak in Addis Ababa. Sudan relations with its neighboring countries continued to deteriorate.

South Sudan war continued all through the 1990 and the newly discovered oil resources became a source of funding for the violence activities of the Sudanese government. Nevertheless, the government tried to present itself as a government that preserve the human rights.

In 1996 Al Turabi started to build alliances that would allow him to take lead of the government instead of Al Basheer. The conflict between both reached a peak by 1999 in which Al Basheer dissolved the parliament - and implicitly Al Turabi position as its head - and declared a state of emergency.
Al Basheer won the 2000 election and in 2001 he arrested al Turabi for conspiring against Al Basheer and it wasn't until 2003 when al Basheer released Al Turabi and allowed him to return to politics.
Al Turabi was again arrested in 2004 for conspiring against Al Basheer.

AL Basheer government and external affairs

Sudan government worked on improving its relations with Europe during the 1990s and with the USA after 11/9/2001 attacks focusing on counter terrorism.
Sudan government also worked on making peace with the South, which succeeded in 2005 after two years of negotiation and 20 years of war.

The government in the North started creating a new government that better represents the South.
In 2003 a crisis started in the western region of Sudan and specifically in "Darfur" area threating Sudan stability.

The International Criminal Court (ICC) in 2009 accused Al Basheer by being "an indirect perpetrator or as an indirect co-perpetrator of five counts of crimes against humanity—murder, extermination, forcible transfer, torture, and rape—and two counts of war crimes—intentionally directing attacks against a civilian population or against individual civilians not taking part in hostilities and pillaging in Darfur

between March 2003 and July 2008". Later the ICC accused him of genocide as well against the people of Darfur.

The relations with USA specifically and the west generally and Sudan were varying. It improved upon Sudan cooperation regarding fighting terrorism, but quickly declined due to Darfur crises.

Meanwhile, Sudan oil production made it of interest to other countries such as China, Malaysia, and India. An interest that made it difficult for USA and the west to pressure Sudan as it was gaining foreign leverage with its new asset.

Sudan Sanctions

(Note: All the following section details regarding Sudan Sanction are in reference to(Hamid and Adam, 2013) *unless mentioned otherwise)*

USA decision to impose sanctions on Sudan came after years of diplomatic tension and incidents between the two countries. The starting point was 1967 and the beginning of Arab-Israel war in which USA supported Israel and Sudan stood with Palestine. In 1973 Palestinian terrorist assassinated USA ambassador in Sudan and his deputy. Another clash occurred in 1986 as USA attacked Libya, which was Sudan Ally at the time.

Sudan support for Iraq during Kuwait war and claims about Sudan support to Islamic terrorist groups led to USA putting Sudan as a state that sponsors terrorism in 1993 and freezing USA embassy operation Sudan in 1996.

Below is figure 7, showing the details of the sanctions imposition and the relevant years in which it was imposed.

Figure 7:Series of sanctions imposed in Sudan and their time frame, prepared by author, based on in text mentioned references

The sanctions on the other hand denied the Sudanese people - who were struggling with civil war, famine, and poor economic situations – the access to foreign aid or financial support leaving them under a dictatorship government and collapsing economy for 24 years.

The war and famine led to more than two million death and 6 million under displacement while most of government resources continued to feed the budgets of security and government defense.
"A report by the United Nations Secretary-General's suggests that the imposition of economic measures has led to the suffering of innocent civilians of Sudan, in other words the comprehensive trade and economic embargoes considerably impede the trade and development of the Sudanese economy (United Nations, General Assembly 2011)..."

- *Economical* :

(Note :All the following section details regarding Economical analysis are in reference to (Berry, 2015)*unless mentioned otherwise)*

Up until 1999, Sudan was highly dependent imports and had a very low exports earning, creating high levels of international debt and trade deficit.1997 witnessed the setup of an IMF agreement with the purpose of debt reduction and economic growth enhancement.

The end of the civil war in addition to the kickoff of the oil exports expanded the Sudanese economy in a steady pace, nevertheless it did not eliminate the reliance of the economy on agriculture (Trading Economics, 2021).

In 1998 an oil pipeline and a refinery were constructed, while Port Sudan was being prepared for the oil exports. All these movements enhanced the growth of manufacturing in Sudan.
Most of Sudan felt the oil revenue benefits except for Darfur, due to the active violent acts and instability. Oil revenues provided the country with much needed foreign currency to support the purchase of new

machineries. The more stable the situation became the more FDI inflows that entered the country allowing the development of the financial sector to begin with in addition to food processing, sugar refining and Telecommunication.

"SudaTel", which was the newly privatized Sudanese telecommunication company (1994) started constructing and operating both land line and mobile networks (MobiTel) A project that attracted domestic and foreign investors. In 2010 the government declared its intention to privatize all the remaining government- owned companies. In 2011 the decision was applied. Banks such as Bank of Khartoum, Real estate bank in addition to river transport corporation and Sudan Shipping company were all sold.

About Sudan GDP

As per the following figure 8 below, Agriculture contribution to the GDP declined over the years from 35.4% in 2004 to 31.3% in 2010 (Berry, 2015). Oil and its sub products contribution on the other hand grew from 26.6% in 2004 to 34.7% in 2008 and then 24.5% in 2010 as the sector growth slowed.

The service sector contribution to the GDP in 2004 was 38%, followed by a decline in 2008 to 34.2% then 44.2% in 2010 and as of 2002 livestock production became the quickest growing non -oil sector in the Sudanese economy.

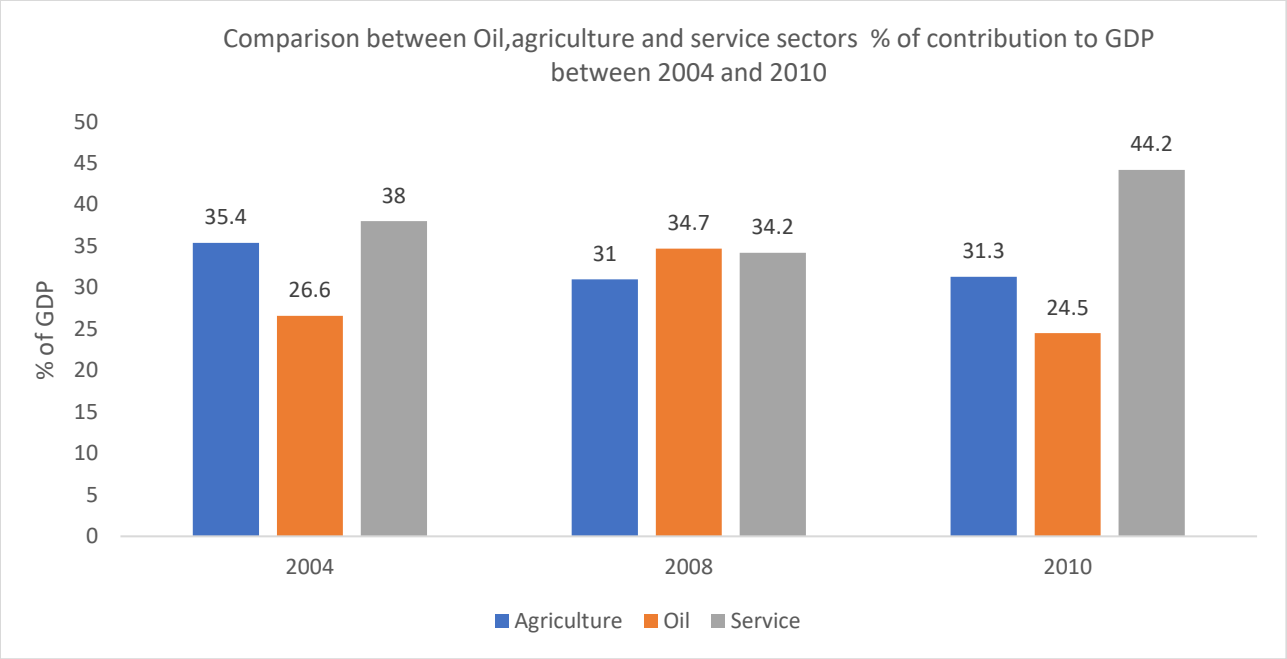


Figure 8:Comparison between Oil, agriculture, and service sectors % of contribution to GDP between 2004 and 2010, prepared by author based on Berry 2015

GDP by expenditure trends in 2008 were dominated by the private consumption representing a 52.8% followed by government expenditure at 13.2%, total investments of 18.2% and net exports of 0.6%.

Oil was pumped from the fields in South Sudan to the to port Sudan (on the red sea). The production that started in 2009 averaged a quantity of 280 thousand barrels per days in 2003 and reached 480 thousand barrels per day in 2008. The main result of this growth was a high inflow of FDI that allowed the oil sector exports to grow and constitute 95% of Sudan exports in 2008 and Sudan no longer needed to import petroleum products. The effect also appeared in the balance of payment and the foreign exchange earnings.

Moreover, the end of the 1990s and the first decade of the 2000 witnessed a boost in the Sudanese economy along with a shift in its sources of income and an increased level of foreign

investment. This is indicated by the percentage of growth of the manufacturing sector shown below in table 3:

Year	Manufacturing sector growth rate
1999	6%
2000	11.5%
2008	5.7%

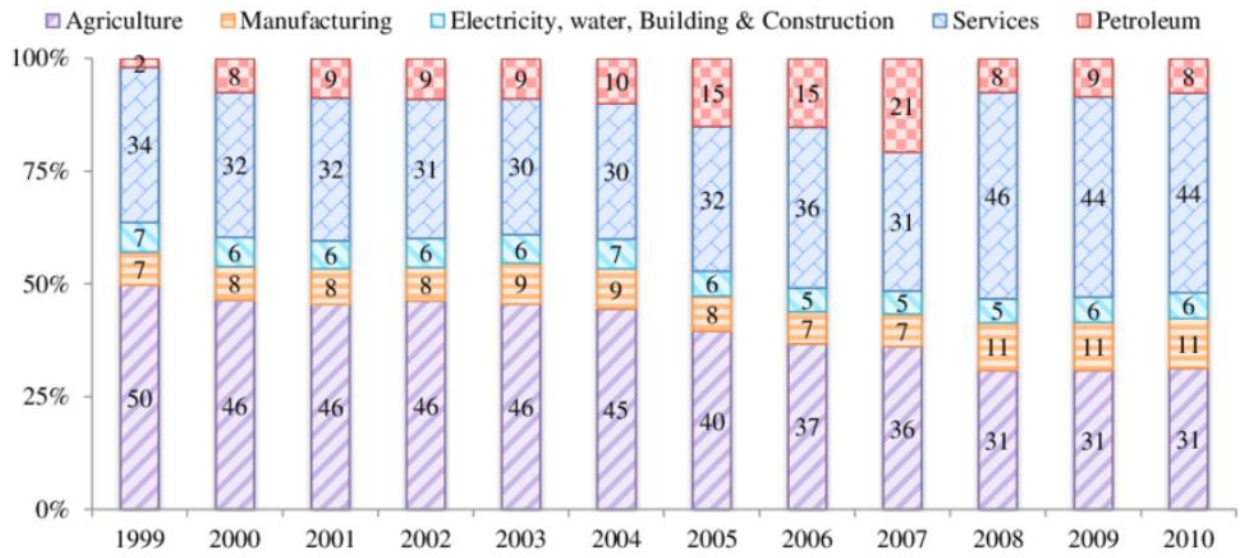
Table 3: Percentage of growth of the manufacturing sector, prepared by author based on Berry 2015

Following the IMF program of 1997, the real GDP reached 6 % per year in 1997, and continued till it reached a peak of 11.3% in 2006, then 10.2 % in 2007 followed by 4.2% in 2009 after the declining trend of the global growth. Below is table 4 listing the GDP parameters changes in Sudan during the first decade of the 21st century

Year	GDP at market price	GDP per capita	Real GDP growth
2000	12.2 billion USD	371 USD	6 %
2005	27.3 billion USD	706 USD	6.3 %
2009	54.2 billion USD	1,281 USD	4.2%

Table 4:GDP parameters changes in Sudan from 2000 to 2009, prepared by author based on Berry 2015

Sudan inflation was 7.2% in 2006 and it continued to increase reaching 11.2% in 2009 and 13% in 2010 due to an increase in the overall prices.



Sectorial Composition of the Sudan's GDP, 1999 – 2010 (in %). Source: Central Bank of Sudan's Reports (various issues).

Figure 9: Sectorial composition of Sudan GDP (1999 -2010) in percent, Source: Central bank of Sudan reports - Various issues

Sudan Exports, Imports & FDI

In 2008 Sudan exports surpassed its imports reaching a value of 12.4 Bn USD vs 8.9 Bn USD for imports. 11.6 bn USD of the exports value was of petroleum-based products due to the increased oil production in addition to the global price increase of oil.

Sudan dependency on oil exports means its economic situation is also dependent on oil international prices as well.

FDI inflows started growing, feeding as a start the fast-growing sector of oil production in addition to transportation, pharmaceuticals, and food processing. Below is table 5 showing the major FDI inflows to Sudan.

Year	FDI amount USD	Notes
1996	0.4 million	
1998	370.7 million	First construction of oil pipeline, Aljayly refinery and port Sudan terminal and kickoff of the IMF reform program
2006	3.5 billion	FDI represented 10% of the GDP
2009	2.6 billion	FDI represented 5% of the GDP

Table 5 :major FDI inflows to Sudan from 1996 to 2009, prepared by author based on Berry 2015

The FDI contribution examples include the 220-megawatt power station built by the Chinese company Harbin Power Engineering Company, in addition to a new 275-megawatt power plant built and operated by DIT Power a Malaysian company with a cost of 200 million USD.

Khartoum and port Sudan had the biggest shares of investments as the capital and the seaport, however other rural areas gained a share such as "Kenanah" area that had the biggest sugar cane filed and sugar processing facility bringing FDI from Turki and Persia along with employment to the area and expanding the sugar industry to include more companies such as White Nile sugar company.

The rising prices of food internationally pushed the government to establish agreements giving foreign investors access to the Sudanese agricultural lands. Investors included firms and states from Persia & gulf in 2008 followed by Egypt in 2010.

420 thousand hectares in Al Gezira region were designated for wheat and cereals grown for Egypt consumption.

The focus on the oil sector had a severely negative impact on the agricultural sector which was Sudan's competitive advantage for many years.

Cotton for example represented 50% of export revenues in the 1960s making Sudan the second largest exporter of cotton in the world, however by 2008 it represented only 1.1% of export revenue. Gum Arabic, the second cash crop in 1960s exports, but in 2008 its revenue was even less than that of cotton.

Even livestock production which was supported by the government in 2002 had a severe decline it its export levels and there for revenues (0.3% of total export revenue in 2008).

Sesame seed took place of cotton in 1990s, however it fell back in place after the oil production in 2008 representing 2.3% of export revenues.

In 2008, Sudan continued exporting gold, sugar, and peanuts as well.

32.8% of Sudan imports in 2008 were in the form of machinery and transport gear. Mainly for the support of oil industry and its expansion. The other industries received less attention and as a result 24.7% of the import value was for manufactured goods for consumption. All this resulted in a trade deficit during the years 2004 to 2006 however it was balanced out and a surplus gained in 2007.

Britain was Sudan biggest cotton customer, purchasing about 80% of Al Gezira scheme production by 1920. Later, India, Germany, Italy, and Japan also imported cotton from Sudan.

In 1970 -1971, trade with eastern Europe and the Soviet Union rose making the latter Sudan biggest customer at the time but that quickly changed as the political situation in Sudan changed and as a result its external affairs in 1972.

The 1980s biggest customer for Sudan livestock and sorghum was Saudi Arabia as well as Britain, France and China and USA joined them at the end of that decade who were interested in Gum Arabic, cotton, and peanuts.

During the 1990, Saudi continue to purchase up to 20 % of Sudan exports, most of which was livestock, but as Sudan became more focused on oil, the exports customers changed with east Asia replacing the middle east as China and Japan purchases 63% of Sudan Exports in 2001.

Below is table 6 showing the percentage of Exports and the corresponding countries that received it".

Country	Percentage Of Sudan Exports in 2007
China	67.9%
Japan	19%
South Korea	2%
Saudi Arabia	1.7%

Table 6:Percentage of Sudan exports and the recipient countries of those exports, prepared by author based on Berry 2015

During the 1980s Sudan main imported item was petrol. Sudan got most of it and of its other imports from Saudi Arabia making it the provider of 14.1% of Sudan total imports. Britain was Khartoum second major provider with 8.3% of Sudan total imports which ranged from cars and machinery up to beverages and tobacco.

Egypt and Sudan trade relation fluctuated throughout the years. They reached their worse during Al Numeri government (1969 -1985), however it flourished again in 1988 and 1991.In 1989 Sudan made agreements with Libya to purchase oil, fuel, cement, and chemicals, making Libya the third in size of

import providers for Sudan. Below is table 7 showing the percentage of imports and the corresponding countries that received it:

Country	Percentage of Sudan Imports in 2007
China	27.9%
Saudi Arabia	7.5%
India	6.3%
Egypt	5.6%

Table 7:Percentage of Sudan imports and their exporting countries, prepared by author based on Berry 2015

In 2005 Sudan was positioned as number 19 on the list of poor countries despite its enormous resources due to the low GDP per capita (340 USD) and positioned as number 139 out of 177 in terms of human development indicators (Hamid and Adam, 2013).

Balance of Payments

Economists have always been skeptical about Sudan's balance of payment records due to doubt about the government accuracy in recording imports and public sector loans.

However, General trends appear. For example, before the oil production, there has always been a deficit due to the high imports' levels.

After the oil production the export earnings shifted the situation creating revenues that reached 1.9 billion USD in 2000 and 4.8 billion in 2005.Another positive result of the oil production was the forex exchange savings from being self-sufficient in petroleum products. As a result, and for the first time, Sudan had a surplus in years 2000 and 2001.

The expansion efforts in the oil industry increased the import levels once again, leading to deficit in

2005 and 2006 followed by a surplus in 2007 and 2008. The decline in global oil prices led to another deficit in 2009.

The investment income and service sector were always at a loss which increased after the loss of the oil exports. The debt on service mounted up to 2.9 billion USD in 2007 due to the high imports' levels and costs of oil transportation.

The profit repatriation of the firms working in the oil sector led to income debt amounts that reached 5.7 billion USD in 2008.

The transfers of the Sudanese workforce outside always kept the transfer balance positive, but not enough to offset the deficit resulting from trade and service. In 2007, transfers amounts reached 20 million USD and it continued to grow as more Sudanese travel to work outside and the development of the Sudanese banking system encouraged them to use the formal methods of transfer. In 2008 transfers were in deficit but recovered in 2009.

The non-merchandize account contributed positively to the net outflows in 2008 mounting up to 5.2 billion USD while the deficits went on in the current account. However, thanks to the oil export and the economic growth the deficit percentage of GDP declined.

The increase in inflows and forex was not enough to cover the negative current accounts balance leading to the balance of payment being in deficit. The deficit reached 406 million USD in 2011.

Sudan GDP and Economic Indicators

South Sudan separation decreased the country's GDP from 5% in 2010 to 2.8% in 2011 and simultaneously the inflation raised from 15% in 2010 to 20% in 2011 as the food prices increased and the currency devaluated with the loss of the oil foreign exchange inflows (African economic outlook, 2021).

The budget deficit in 2011 was 5 % and continued to rise in the following years as the sanctions continued and the revenues continued to decrease (African economic outlook, 2021).

An emergency economic program was established by the government in to be executed in the period (2011 -2014). with the aim of cutting spending. The highlight of the program was the partial subsidy removal of sugar and fuel in addition to the introduction of 50% - 100% import tax on 18 consumer commodities (African economic outlook, 2021).

The service sector % of the GDP was 42.8 in 2010 and grew to 44.6% in 2011 due to the financial sector growth and the industry sector decline, nevertheless the population loss and higher taxes reduced the contribution of the wholesale, trade, and telecommunication section (African economic outlook, 2021). Below is table 8 with the main economic indicators for the period of 2011 – 2013 (African economic outlook, 2021)

	2010	2011	2012	2013
Real GDP growth	5	2.8	2	2.8
Real GDP per capita growth	2.5	0.4	-0.4	0.4
CPI inflation	13	15.3	19.8	17
Budget balance % GDP	-3.1	-4.3	-3.4	-4.3
Current account % GDP	-6.4	-7.5	-12.3	-8

Figures for 2010 are estimates; for 2011 and later are projections.

Table 8:Sudan main economic indicators for the period of 2011 – 2013, (Source: African economic outlook, 2021)

Below is table 9 showing how did Sudan GDP change because of the sanction in terms of the percentage of its components (African economic outlook, 2021):

	2006	2011
Agriculture, forestry, fishing & hunting	32.9	33.1
Mining and quarrying	9.6	10.1
of which oil	-	-
Manufacturing	7.4	8.6
Electricity, gas and water	2.2	1.8
Construction	4.4	4.7
Wholesale and retail trade, hotels and restaurants	15	15.6
of which hotels and restaurants	-	-
Transport, storage and communication	13.9	12.5
Finance, real estate and business services	6.7	6.6
Financial intermediation, real estate services, business and other service activities	-	-
General government services	-	-
Public administration & defence; social security, education, health & social work	-	-
Public administration, education, health	-	-
Public administration, education, health & other social & personal services	5.6	5.3
Other community, social & personal service activities	-	-
Other services	2.1	1.9
Gross domestic product at basic prices / factor cost	100	100

Table 9 :Sudan GDP change due to sanction in terms of the percentage of its components, (Source: African economic outlook, 2021)

Chapter Three: The birth of South Sudan - Political and Economic background

South Sudan: Country overview

In July 2011 South Sudan gained its independence from Sudan, Becoming the newest country worldwide (GINN, 2015).

South Sudan is landlocked with Sudan, Ethiopia, Kenya, Uganda, Congo, and Central African Republic as its neighboring countries (see figure 10 below). The capital of South Sudan is Juba, with the country also containing the origin of the White Nile.

South Sudan is constituted from 11 states with over 60 ethnic groups. As a result, and in addition to the English & Arabic, several regional languages such as Dinka, Nuer & Shilluk dominate the country.

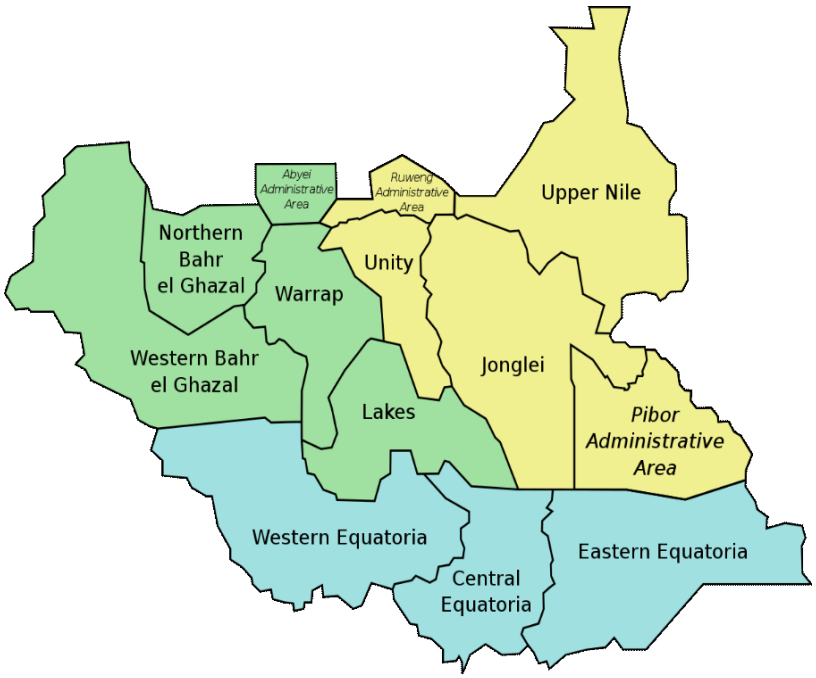


Figure 10 : Map of South Sudan

Its population is around 11.2M capita of which 35.8% is from Dinka tribe and 15.6% from Noir. South Sudan age distribution (see figure 11 below) makes it one of the youngest nations in the world. South Sudan currency is the South Sudanese pound (SSP),(Global edge, 2021).

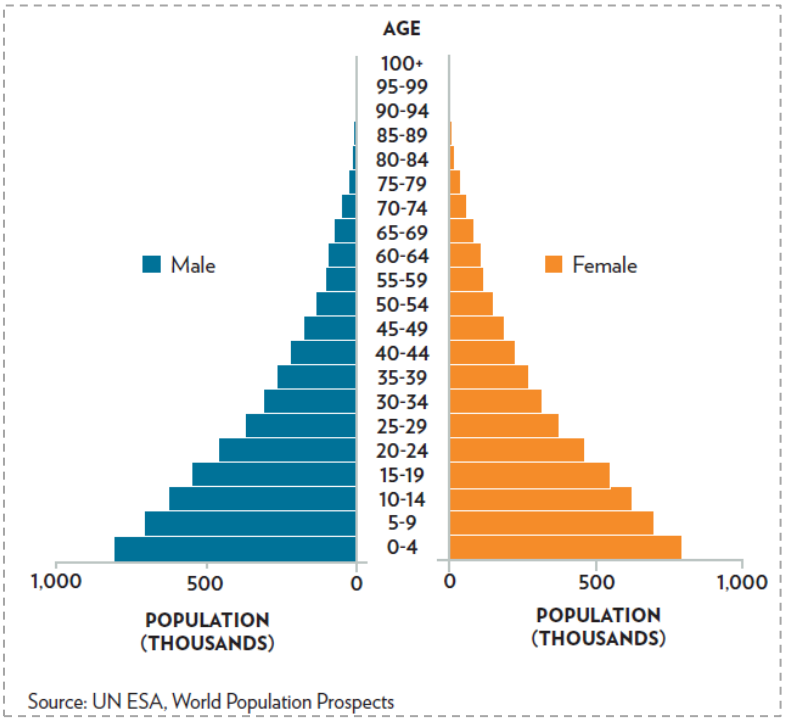


Figure 11: Population, Age and gender distribution of South Sudan, Source: UN ESA, world population prospects

The new country is run through a republic system with its president being Salva Kiir Mayardit. South Sudan separation from Sudan relieved it from the sanctions imposed on the latter and all the legal implications of it.

South Sudan joined the COMESA (Common market for eastern and southern Africa), (Global edge, 2021)..

- Political and Legal background:

In 2011 Southern Sudanese opted for independence from Sudan after the election in 2010 that contained a referendum on self-determination for South Sudan (Berry, 2015).

Following the independence, Civil war erupted in South Sudan in 2013 due to power conflicts between the elected president Salva Kiir Mayardit and the vice president Riek Machar, misplacing 4 million capita. A peace agreement was put in place in 2018 ending that war (BBC, 2021).

- Economical:

Despite having 80% of the oil reserves of the - before separation Sudan – in addition to vast areas of fertile lands and minerals the long civil war hindered South Sudan development, leaving it a victim of severe poverty reaching up to a rate 90% with half the population under the poverty line (Renzi, 2021).

South Sudan economy continues to depend on oil exports (oil exports constitutes 80% of South Sudan GDP) with most of the country's FDI allocated to that sector despite the government's diversification efforts which are focused on the development of the private sector.

South Sudan GDP declined with round 50% (from $22 bn in 2011 to $12 bn in 2012) due to a dispute with Sudan over the oil exports leading the latter to shut down the export pipeline.

The Sudan/South Sudan oil disputes was due to the latter owning 70% of oil reserves while Sudan owns most of the infrastructure required for oil exports. Disagreements are related to the fees of using the infrastructure.

The exports resumed in 2013 boosting the GDP by 25% in the same year with an agreement with the agreement providing Sudan with 1.5 billion barrels vs 3.5 billion barrels for South Sudan.

The political instability however left its impact on the GDP per capita which was about $1350 per capita in 2013 compared to $2673 per capita for the sub-Saharan average (GINN, 2015).

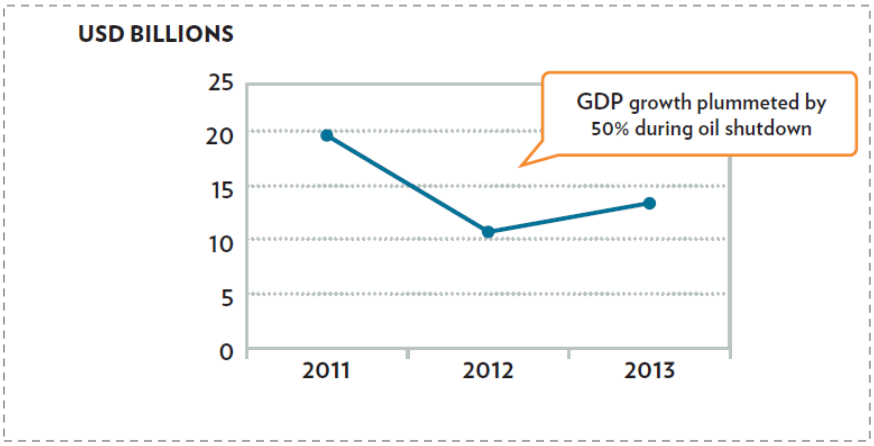


Figure 12:South Sudan GDP (2011 - 2013), Source: GINN 2015

On the other hand, Agriculture remains the main profession of the south Sudanese people with 80% of the household's income dependent on farming and animals' production. This however led to a sensitivity of income as agriculture is easily affected by natural disasters such as insects' infestations, floods, and animal/crop diseases (GINN, 2015).

(Note: All the following sections regarding are in reference to (GINN, 2015)*.) unless mentioned otherwise)*

South Sudan and FDI

The majority of the FDI inflows to South Sudan is targeting the oil sectors from companies such as, Malaysia's Petroliam Nasional Berhad (PETRONAS), and India's Oil and Natural Gas Corporation (ONGC), & China's National Petroleum Company in addition to countries such as Russia, Kuwait, USA and France. Kenya, Ethiopia & south Africa are investing in the insurance and banking sector while other multinational

companies such as Zain &MTN the telecom operators as well as East Africa airlines and Air Uganda are appearing in the south Sudanese market.

In 2018 the FDI amounts constituted 4.355% of South Sudan GDP compared to 2.348% in 2017 (Renzi, 2021).

Another major FDI source is the foreign aid coming from USA and Europe which reached $4 bn in 2005 targeting sectors such as health, infrastructure, and humanitarian affairs.

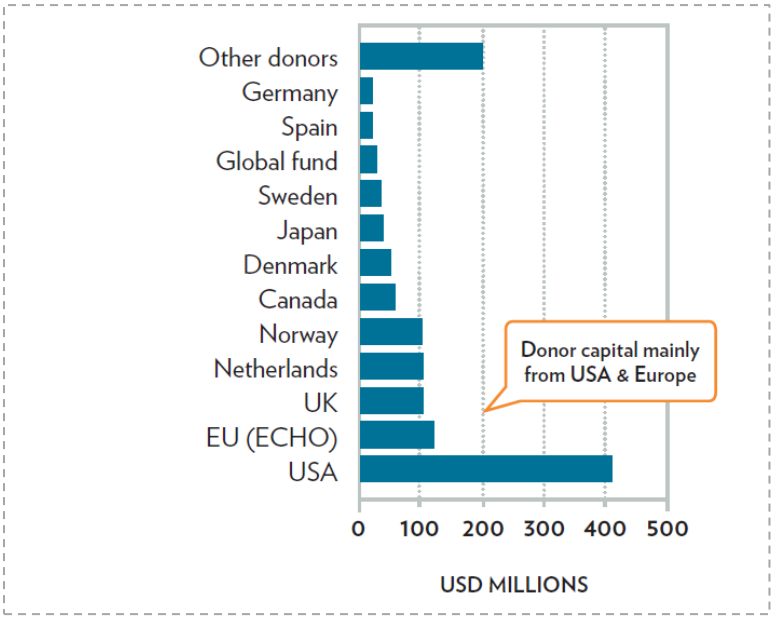


Figure 13:Forign aid inflows to South Sudan in 2010 and their origin, Source: GINN 2015

South Sudan Inflation and Exchange rates

The high level of political and economic instability of South Sudan led to a major fluctuation in exchange rate & inflation.

2012 was the peak of South Sudan inflation with 80% rate in mid-2012 then declined to a negative rate in

2013 after the peace agreement with Sudan regarding the oil exports. It increased again to 11% in 2014 and was expected to stabilize in about 5% rate.

The South Sudanese pound official exchange rate is averaging (4:1) vs the USD in 2012 to 2014, while the black-market rate fluctuated in a more noticeable sense as seen in figure 14 below:

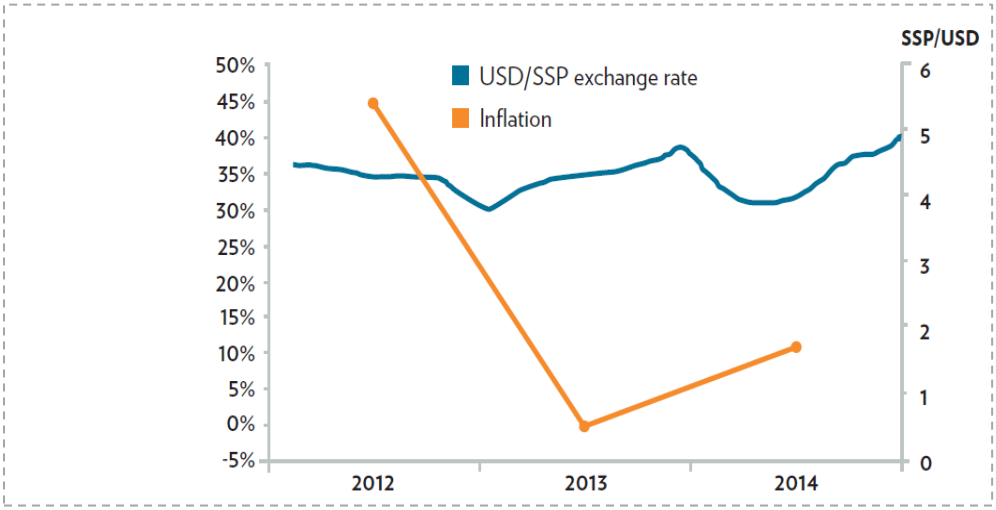


Figure 14: Inflation and USD/SSP exchange rate 2012 -2014, source: GINN, August 2015

South Sudan Investment environment

The investment environment in South Sudan is still not encouraging due to factors such as:

- Political and economic instability
- Lack of proper investment regulations
- Lack of talented human resources

This in turn ranked South Sudan as 186 out of 189 in terms of ease of doing business world bank ranking.

Social

In addition to the poverty that is making more than 50% of population live under $1 per day, South Sudan lacks most of basic services such as health and education. The country also suffers from ethnic conflicts which- in 2013- led to the deaths of 50 k people and the displacement of 2.24 M more.

The quality health system is low to the degree that there is only one doctor per 65.574 thousand people. In fact, 40% of children die under the age of 5 while 381 out if 1000 die during birth (Renzi, 2021; GINN, 2015).

75% of households' heads are illiterate while the younger generation (Older than 15 years old) has a literacy rate of 27% with boys constituting the biggest share of educated children compared to girls. Those basic education and healthcare are mostly provided by NGO's and churches.

The low levels of education among the youth have a severe effect of a country such as South Sudan where 63% is younger than 25 and 40% is younger than 15 years old. Such rates on top of an increasing unemployment rate makes it difficult to incorporate the youth in any developmental or economic growth opportunities (GINN, 2015).

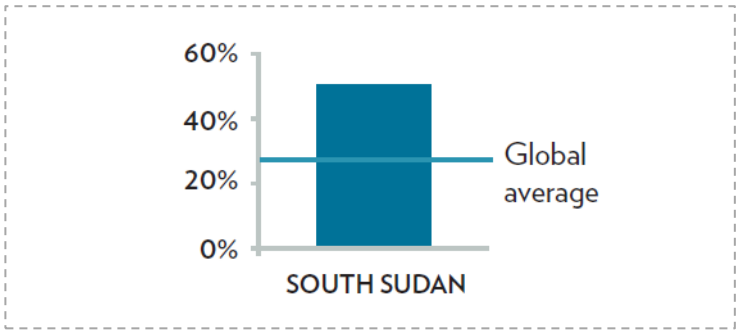


Figure 15 : South Sudan percentage of population poverty, Source: UN developmental report 2014

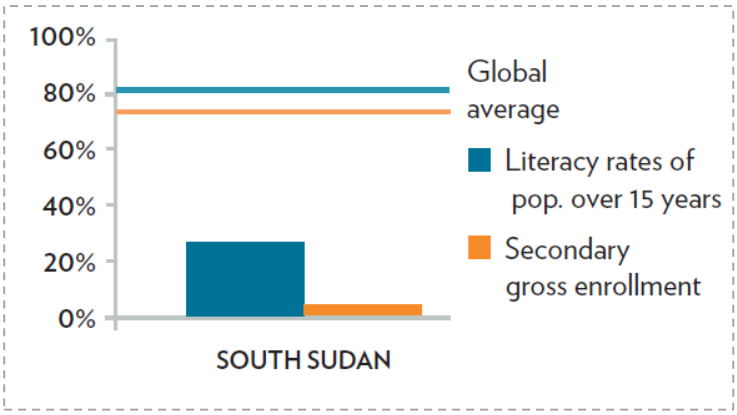


Figure 16 : Secondary school gross enrollment, source: UN human development report 2014

Chapter 4: Research Methodology

Research Methodologies Overview

Purpose of Research

Research is a process that is conducted for the purpose of finding evidence that support a specific theory or answers a specific question through the application of a particular scientific procedure.

Research objectives can be divided into three general groups based on their purpose which are (Kothari and Garg, 2019):

1. Exploratory or formulative research: Which aim is to develop new knowledge or insight into the problem under study.
2. Descriptive research: Which tries to describe and identify the specific characteristics of an individual, situation of a group.
3. Diagnostic research: which seeks the determination of the occurrence frequency of a specific event or the association of the event with other events.
4. Hypothesis testing research: Which tries to determine and test the relationship between specific variables under study.

Research methodologies on the other hand are divided into two major categories, Quantitative approach, and qualitative approach.

Quantitative research

Quantitative research is based on focusing on a specific research question that should be answered through the study. A literature review is conducted so that specific hypotheses are

developed (usually from a social theory). and then tested through a sample group. The testing process depends on the selection and measurement of specific and relevant elements in addition to determining the characteristics of the chosen sample. These choices affect represent the design elements of the study and has huge effect of its results (Choy, 2014).

Another definition for the quantitative research was being "an inquiry into a social or human problem based on testing a theory composed of variables measured with numbers and analyzed with statistical procedures in order to determine whether the predictive generalization of the theory hold true…", While others argued that it is "…empirical research where the data are in the form of numbers" (Sogunro, 2002).

Quantitative research is applied through a questionnaire or an experiment which is formed to test the hypothesis under study through a chosen sample. The questionnaire is usually standardized and administered to specific groups depending on a random sampling process, where the sampling method and the sample size depend on the researcher choice. On the other hand, the questionnaire answers represent the data that is going to be analyzed to determine if the hypothesis is accepted or rejected. Such data should be collected and verified by the researcher to ensure their accuracy (Choy, 2014).

The determination of the hypothesis accuracy depends on finding correlations between the collected data, its main variables, and the outcomes of these correlations using the knowledge gain from the previously conducted literature review and the similar studies available. It is important that this data allows other researchers to replicate and validate the original findings through conducting another independent research. Research findings should be documented in a written reports along with all the hypothesis and study details (Choy, 2014).

Qualitative research

Qualitative research on the other hand is dependent on the researcher reflections on a specific social situation. Implicitly, this means that there is no specific focus on a pre-determined question, but an open-ended discussion to reflect a specific perspective. As a result, the qualitative method uses several techniques for data collection such as purposive sampling and open-ended interviews .

In qualitative research, the researcher builds a new theory depending on the currently existent theories and his/her interpretation of their logic usually following a nonlinear pattern or what is called “Logic in practice” compared to the quantitative research (Choy, 2014).

Similar to the quantitative research definition, Punch 1998 defined the qualitative research as “Empirical research where the data is not in a form of numbers” (Sogunro, 2002).
Building the new theory involves the development of new concepts while clearly describing the structure that led to this new theory followed by a documentation of all these details.
However, and as qualitative research is based on the interpretation of words, sentences and other soft data compared to the numerical nature of the quantitative research data; this difference also creates a variance in the assumptions that rule both methodologies (Choy, 2014).

Therefore, it is important to create a structure for the qualitative research so that the researcher would be able to formulate an understanding and an explanation of the events under study (Snyder, 2012).

Comparisons between the two approaches:

One of the main strengths of the quantitative research is its speed of application compared to the qualitative due to its numerical nature that makes its analysis faster and more reliable (Choy,

2014).

Another point is that the numerical results make it comparable between different organizations and groups and therefore providing the ability to understand the level of alignment or agreement between respondents regarding the specific research points (Choy, 2014).

The weakness on the other hand is as a start, the negligence of the human beliefs and perceptions and as a result there is no description for how deep the research topic affected the respondents. Another weakness is due to the need for a large scale of research for the data to become significant, a huge number of resources is needed and consumed as well for the development of quantitative research (Choy, 2014).

The open-ended inquiry nature of the qualitative research is one of its greatest strengths as it helps in exploring the different point of views in a homogenous way and allows the researcher to understand how the different beliefs and assumptions affected the responses. The same point which created the qualitative research strength can represent a weakness as the open-ended questions make it difficult to reach an objectively verifiable result. The interviews themselves requires a skillful interviewer in addition to a great amount of time for conducting and analyzing the process. The complexity of the analysis process in addition to the limited interpretation capability may lead to unproductive research. It is important to highlight that the limited number of respondents of the qualitative research could create a bias as the participants have ability to influence the data (Choy, 2014).

Figure 17 below highlights the strengths and weakness of both techniques (Choy, 2014).

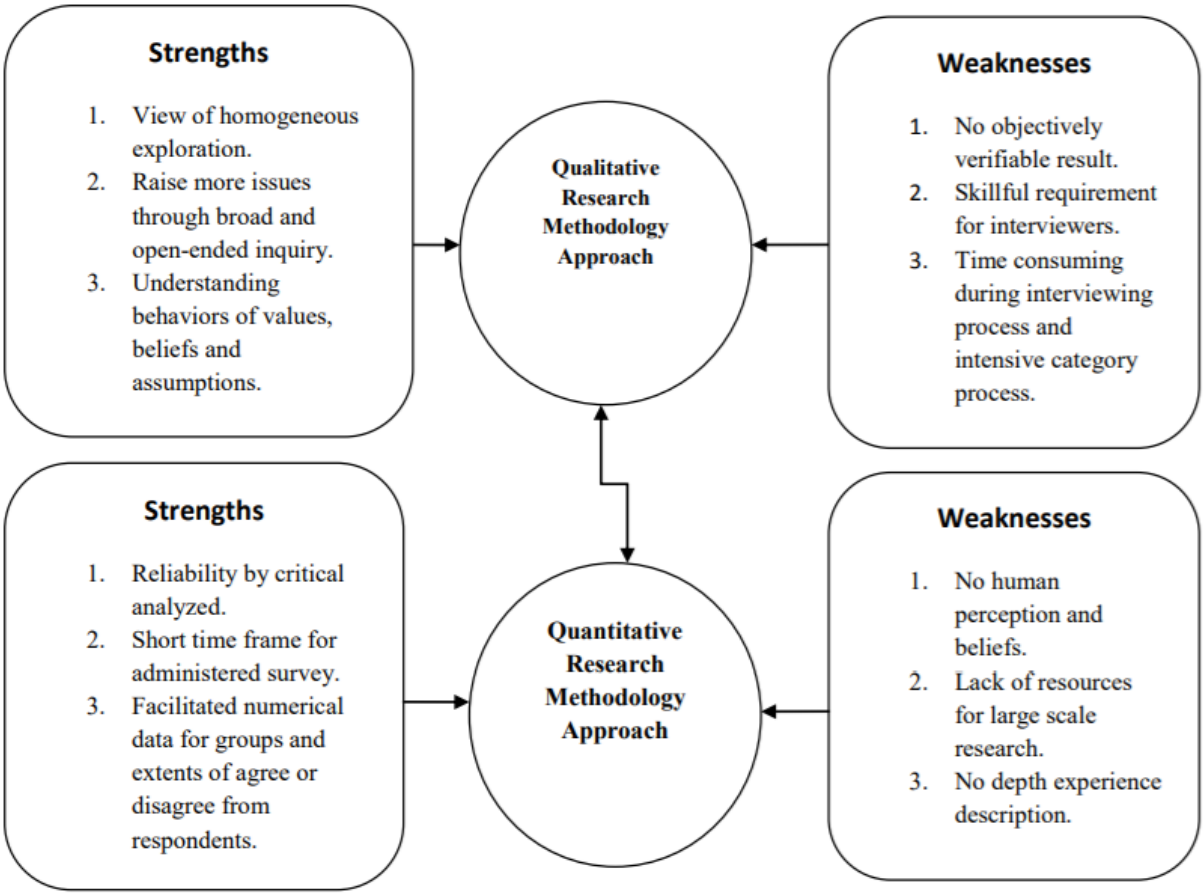


Figure 17:strengths and weakness of qualitative and quantitative research, source: (Choy, 2014)

The concept of regression analysis is based on the utilization of a mathematical approach to understand how the different variables of a specific model change with respect to each other, which of them has the biggest impact in relation to the overall model performance and the nature of the correlations among these variables.

Following this logic, the components of the regression analysis are:

- Dependent variable: represents the variable understudy with the aim of understanding its attitude or predict its performance
- Independent variables: the factors which are predicted to influence the trend of the dependent variable.

Regression analysis is applied on historical trend data of both the dependent and independent variables which is plotted in a visual chart where the y axis represents the dependent variable, and the x axis represents the independent variable. A trend pattern is to be estimated to understand how the dependent variable is affected by the independent ones as shown below in figure 18, (Gallo, 2015).

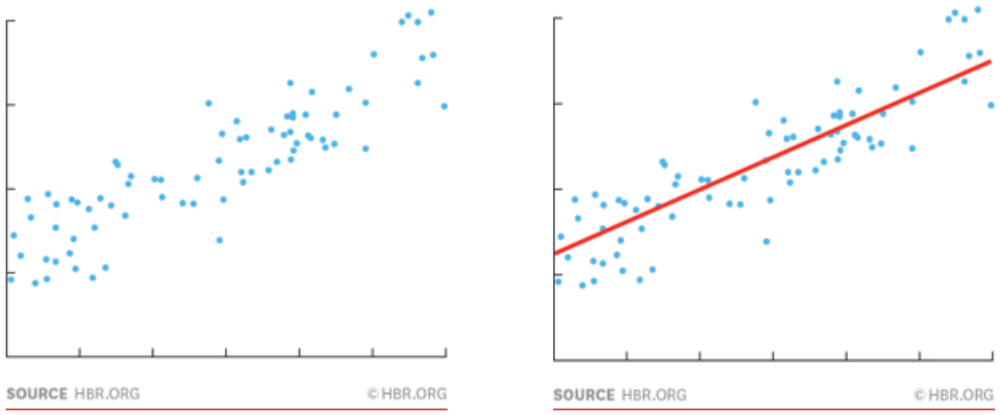


Figure 18: Regression analysis and trend estimation, source :(Gallo, 2015)

The line represents what is known as the regression line which explains the relation between the dependent and independent variables. Several softwares are used to estimate the

regression trends such as Excel, SPSS & STATA. These softwares also create an equation to represent the trend line and assigns a value to the possible estimation error (Gallo, 2015).

About Difference in Difference approach (Diff in Diff)

Difference in difference is an econometric approach that examines the effect of a specific intervention on the targeted group under study compared. It allows the understanding of the two scenarios, first what happened due to the occurrence of the intervention and second, what would have happened if the intervention did not occur.

This analysis methodology is very common in economics where it is mostly used in situations where the goal is to understand the effect of the application of a specific policy. Its mechanism works by considering two groups in at least two periods in time (before and after the implementation of the policy), the first is a control group which maintains the original circumstances while the second group is a treatment group which has been the object of the policy. Under the critical assumption that the difference in other factors remains stable between the two groups over time, the difference in the outcomes between the two groups represents the effects of the policy as shown in figure 19 below (Babu, Gajanan and Hallam, 2017)

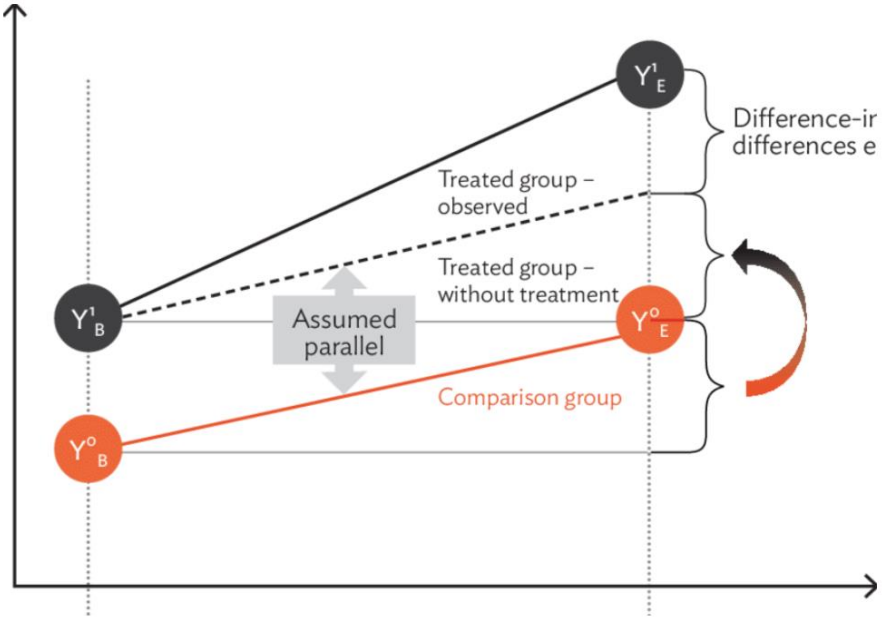


Figure 19:Diffrence in Difference method illustration, source: (Babu, Gajanan and Hallam, 2017)

This allows the understanding of the systematic differences between the groups understudy and how the policy understudy is affecting both of them regardless of their specific individual characteristics.

It is important to highlight that the most critical assumption in the diff in diff is the parallel trend assumption which implies that in absence of the treatment the difference is constant over time between the control and treatment group (Columbia University, 2022).

Moreover, other critical factors that are needed for the application of this methodology such as having a clear understanding of the policy under application in addition to a clear identification for the attributes of the groups understudy (Both control and treatment groups) in addition to the timeline during which the experiment is applied in order to clearly identify the consequences of the policy

application through monitoring the variations between the control and treatment groups pre-treatment and post-treatment (see figure 20 below).

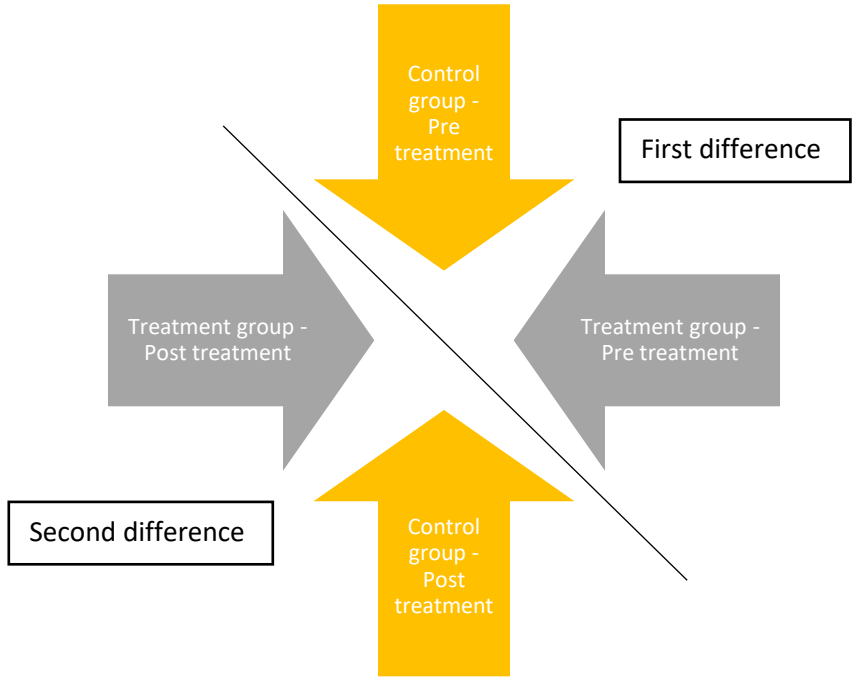


Figure 20: Elements of difference in difference application, prepared by author, based on (Babu, Gajanan and Hallam, 2017)

The term first difference refers to the difference between the treatment and control groups prior to the policy/intervention application while the term second difference refers to the difference between the two groups post the policy/intervention application. According to the Difference in difference approach, the impact of the intervention is realized by subtracting the second difference from the first difference (Babu, Gajanan and Hallam, 2017)).

The difference in difference model is usually expressed in the form of a regression model expressing an interaction between time and the treatment group as follows:

"Y= β0 + β1*[Time] + β2*[Intervention] + β3*[Time*Intervention] + β4*[Covariates]+ε "

(Columbia University, 2022).

Advantages, and Constraints of Difference in difference methodology:

Figure 21 below highlights the advantages and constraints of difference in difference methodology as per Waldinger,2021 & Columbia university (Columbia University, 2022)

Advantages

- Standard errors are easliy calculated and variables can be controlled
- Allows the consideration of multiple time periods
- Allows the consideration of various intensities of the treatment

Constraints

- The existence of a control group(one that had not undergone a treatment) is necssary for the application of the difference in difference method
- Method is inapplicable in case the comparison groups possess different outcome trends
- Method is iapplicable in case of insatble changes

Figure 21:Advantages and constraints of difference in difference methodology, prepared by author, based on Waldinger,2021 &Columbia university (Columbia University, 2022)

About Stata:

STATA is a statistical software designed to analyze and understand the patterns of the data under study. It used by researchers in the economics, biomedicine, and political science fields (University of Illinois, 2022)

Overview about the data used

The data understudy is a list of FDI project from all over the world during the period from 2003 up to 2019 which had Sudan or South Sudan as a destination.

Figure 22 summarizes the data in term of the number of projects per year. It can be seen that the number of projects for Sudan during the period of 2003 up to 2006 was high than those of South Sudan, while the projects targeting the latter risen after 2011.Both countries suffered a decline in projects from 2017 up to 2019.

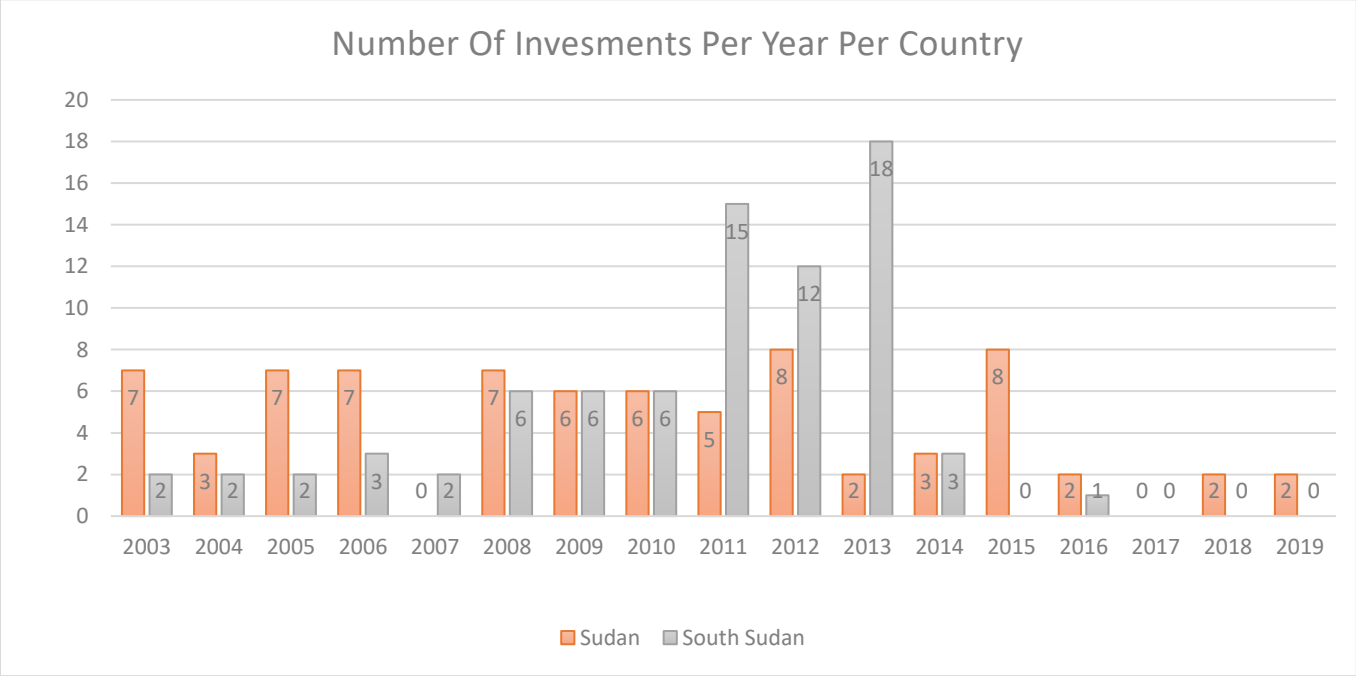
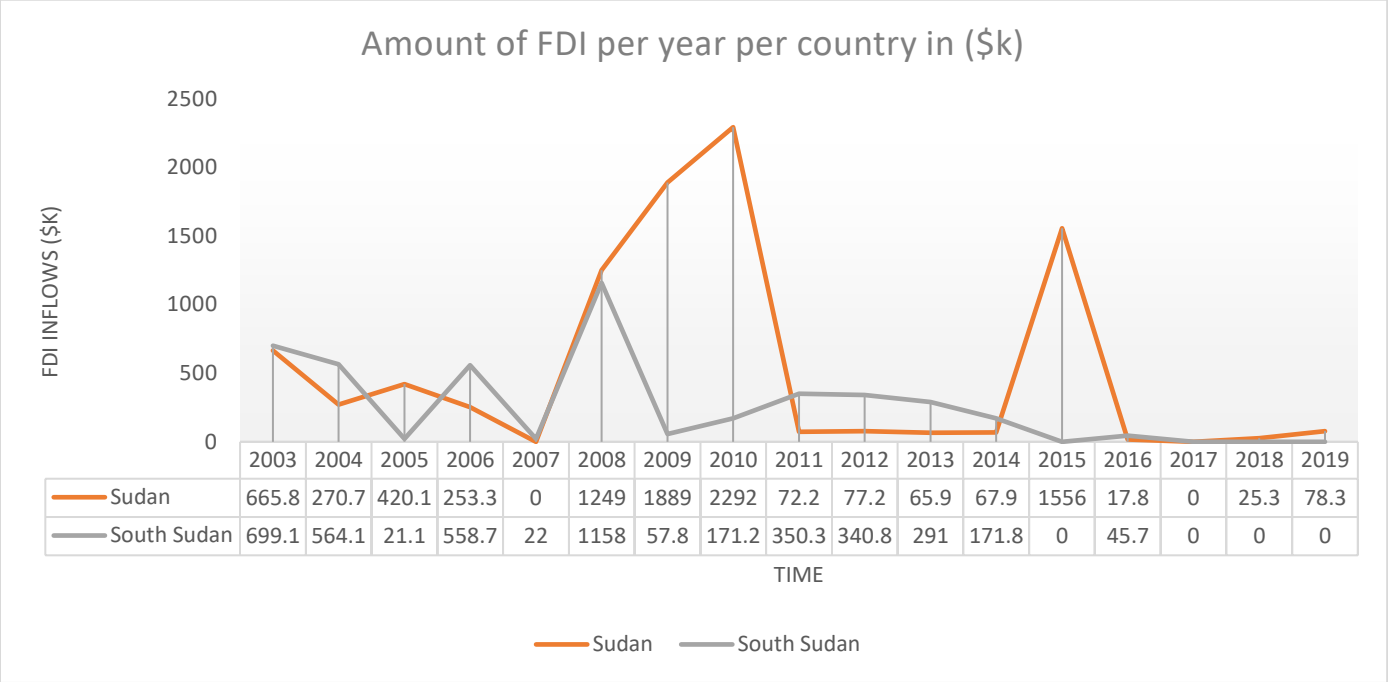


Figure 22:Case study data set in terms of number of FDI projects per year, prepared by author

The Below figure 23 is a summary of the data in term of the amount of FDI per year for both Sudan and South Sudan from 2003 up to 2019. Sudan highest FDI amounts were during the periods of 2008-2010 with a peak amount of 2.3 million USD in 2010 and 1.6 million USD in 2015 while for South Sudan the investment amounts in general are lower compared to Sudan during all the period under study with a maximum of 1.2 million USD in 2008.



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Sudan	665.8	270.7	420.1	253.3	0	1249	1889	2292	72.2	77.2	65.9	67.9	1556	17.8	0	25.3	78.3
South Sudan	699.1	564.1	21.1	558.7	22	1158	57.8	171.2	350.3	340.8	291	171.8	0	45.7	0	0	0

Figure 23:Case Study Data set in terms of amounts of FDI projects per year, prepared by author

Chapter 5: Research Findings, Results, and Discussions

Data Processing Approach

As mentioned previously in chapter 4, the data under study is a quantitative data illustrating the number of FDI projects received by Sudan and South Sudan in the period from 2003 up to 2019. The difference in difference method was applied on the data using STATA software to gain a better understanding about the correlation between the effect of sanctions represented by time on Sudan and South Sudan.

Below is table 10 stating the variables introduced to STATA, their interpretation and purpose.

Variable name	Variable code	Interpretation	Purpose
year	Yr	Indicates the year of the specific project	Allow the understanding of the effect of time on the FDI
time	time	Dummy variable with a value that changes according to the specific analysis scenario with the following assignments: • time= 1 if year <2007 • time=2 if year >2008 & year <2011 • time=3 if year >2011	Allows the creation of different time scenarios

Dummy South Sudan	DSS	Dummy variable with a value = 1 if the region under study is South Sudan and zero otherwise	Used to highlight the location of the FDI project either in Sudan or South Sudan
FDI	FDI	Indicates the amount of the FDI for the specific project	Allows the incorporation of the amount of FDI and highlights its increase/decrease in relation to the remaining variables
ni	ni	Indicates the number of FDI projects per year for each country	Allows the incorporation of the number of FDI projects and highlights their increase/decrease in relation to the remaining variables
Did1	Did1	Difference in difference variable which is the product of DSS*(time==3)	Represents the difference in difference regression equation output

Table 10: Variables introduced to STATA, their interpretation and purpose, prepared by author

Analysis Approach

The analysis approach was with the purpose of taking into consideration the possible effect of certain political/economical events (represented with the time variable) in relation to the FDI amount change because of those events.

Below is table 11 summarizing the major events in the timeline of Sudan and South Sudan:

year	Event
1955	Beginning of civil war between North and South
1956	Sudan becomes independent while tension with southern states increase
1983	Beginning of armed conflict with South Sudan and the Sudanese government
1993	Sudan put of list of terrorism supporting states
1997	Comprehensive set of both trade and financial sanctions imposition against Sudan
2005	Peace agreement with South Sudan ending civil war (comprehensive peace agreement) including Southern Sudanese independence referendum
2006	Renewal of the comprehensive sanctions and expansion to include FDI all through Sudan
2009	Beginning of oil production
	ICC criminalizing Omar Albasheer
2010	Production of natural gas commercially
2011	USA motivated the Sudanese government on peacefully completing South Sudan separation process as it will help in releasing Sudan from the sanctions, however in 2011 President Barack Obama renewed the economic sanctions/ South Sudan got seperated from Sudan following an election in 2010
	South Sudan got seperated from Sudan following an election in 9 July 2011
2012	South Sudan confluct with Sudan over oil rich areas
2013	South Sudan civil war starts
2018	South Sudan Civil war ends with a power sharing agreement

Table 11:Major events in the timeline of Sudan and South Sudan, Prepared by author

The data was divided into three time periods which are described as follows:

- *2003 - 2007*: to understand the situation during a period of extreme sanctions on both countries
  - Applied in STATA by assigning a value of time=1 to the dummy variable
- *2008 - 2011*: to understand the situation during a period of partially elevated sanctions on both countries in addition to the oil production economic boost
  - Applied in STATA by assigning a value of time=2 to the dummy variable
- *2012 - 2019*: to understand the situation after South Sudan separation and sanctions lifting on it
  - Applied in STATA by assigning a value of time=3 to the dummy variable

The analysis was applied twice, taking into consideration the first time the amount of FDI per country per year, and secondly the number of FDI projects per year.

For each analysis cycle, two iterations of the regression analysis were processed:

1. Reg FDI time DSS did1, r: which treats the time variable as a continuous variable
2. Reg FDI i.time DSS did1,r : which treats the time variable as a discrete one, including the dummy variables categories in the model and allowing the incorporation of the effect of different time categories

Research hypothesis:

The research question was whether the existence of the economic sanctions affect the amount of

incoming FDI to a specific country. With the existence of sanctions being represented in the regression model using the time variable and the location/country variable.

It is important to highlight that the uniqueness of the situation understudy is arising from the fact the up to 2011 Sudan and South Sudan used to be one country suffering from the same economic sanctions, however and after South Sudan separation in 2011, South Sudan was relieved from the sanctions which Sudan continued to suffer from up until 2019. This condition made it logical to assume the existence of common trends.

This assumption allowed the utilization of the difference in difference approach; however, the small sample size understudy has contributed to the indecisiveness of the analysis results as discussed in the following sections.

This research represents an initial step in understanding the effect and implications of sanctions on FDI, which would be very interesting to explore with bigger data sets and taking into accounts other economic variables.

Analysis Results

As discussed in chapter 4, the regression analysis is based on the development of a linear relationship between the dependent variables and the independent variables. This relationship in our case was found through the utilization of STATA software.

- <u>FDI amount – first iteration:</u>

  Below in figure 24 are the processing results of the first iteration followed by a detailed explanation of their technical and economic significance.

```
9 . reg FDI time DSS did1, r

Linear regression                               Number of obs     =         34
                                                F(3, 30)          =       3.12
                                                Prob > F          =     0.0405
                                                R-squared         =     0.0962
                                                Root MSE          =     578.71

------------------------------------------------------------------------------
             |               Robust
         FDI |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        time |  -79.85827   127.4511    -0.63   0.536    -340.1481    180.4315
         DSS |  -187.6821   247.7371    -0.76   0.455    -693.6288    318.2645
        did1 |   -169.878   254.6668    -0.67   0.510     -689.977    350.2211
       _cons |   703.2974   327.6947     2.15   0.040     34.05549    1372.539
------------------------------------------------------------------------------
```

Figure 24: Processing results of the first iteration – Amounts of FDI

The data understudy included 34 observations that were used to generate the regression model. The P – value (prob>F) of the created model highlights the significance of the relationship between the FDI dependent variable, and the time and location independent variables was estimated to be 0.04. Such a value indicates a statistically significant relationship when considering a confidence interval of 95%.

The R-squared value of the model represents how much of the FDI variance is explained by the independent variables, which in this case was 9.6%. Such a relatively low value indicates that other factors contribute to the amount of FDI which need to be investigated in following research, preferably with a bigger data size.

The root MSE is negatively correlated to the model fit (the closer to zero the better), which again indicates the effect of other independent variables that are not included in the model.

The column “Coefficients” highlights the amount of units increase/decrease in the dependent variable as a result of a one unit increase in each independent variable. Following this logic, the

model highlights that the time variable is negatively correlated to the FDI amount, with the amount of FDI decreasing by 79.9 million every year. The DSS coefficient shows that the average FDI amount decreases by 187.7 million when the country is South Sudan, compared to Sudan. The did1 variable coefficient indicates the magnitude of the treatment effect in relation to the FDI amount. The model shows that FDI in South Sudan decrease by 169.87 million after South Sudan separation from Sudan. The _cons coefficients represent the regression equation constant, or the hypothetical numerical amount of FDI in case the country is Sudan, and the time variable is the reference category, which is equal to 703.29 units in this model.

The low values of the t- statistics for all variables except the constant (lower than 1.96 for a confidence interval of 95%) and the high p-values imply a low statistical significance of the time and geographical aspect in the amount of FDI (Torres-Reyna, 2007), and may be attributed to the small sample size.

- FDI amount – second iteration:

Below in figure 25 are the processing results of the second iteration followed by a detailed explanation of their technical and economic significance.

```
10 . reg FDI i.time DSS did1, r

Linear regression                               Number of obs     =         34
                                                F(4, 29)          =       2.81
                                                Prob > F          =     0.0436
                                                R-squared         =     0.3290
                                                Root MSE          =     507.14
```

FDI	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
time						
2	557.52	299.731	1.86	0.073	-55.49864	1170.539
3	-306.4147	258.6666	-1.18	0.246	-835.4473	222.6179
DSS	-390.0244	277.4411	-1.41	0.170	-957.4552	177.4063
did1	260.0994	340.858	0.76	0.452	-437.0334	957.2323
_cons	542.5022	174.0803	3.12	0.004	186.468	898.5365

Figure 25:Processing results of the second iteration – Amounts of FDI

The P – value (prob>F) of the second iteration is similar to the first one, however the R-squared value is 32.9% compared to 9.6%, indicating that including the time variable as discrete time periods significantly improved model fit, while still being subject to the same indication that other factors contribute to the amount of FDI, which need to be investigated in following research.

The column “Coefficients” confirms the choice of introducing the time dummies as discrete variables as it displays remarkable non-linearity in the time effects. The positive coefficient of the dummy for the second period indicates that FDI amounts were significantly more positive during the second time period (2008 to 2011), which is the time period in which the oil production started in both countries, with the FDI increasing by 557.52 million during this period. Instead,

FDI were lower in the third time period, with a reduction of 306.4 units in FDI compared to the reference period.

The DSS coefficient shows that the FDI amount is on average smaller by 390 millions when the country is South Sudan, compared to Sudan, over all periods. The did1 coefficient is positive in this iteration in relation to the FDI amount with the FDI in South Sudan increase by 260 units for reach year after South Sudan separation from Sudan. The sign of the coefficient is positive, in line with the expectation that lifting the sanctions increases the attractiveness of the country for FDI. However, the estimate is very unprecise and is insignificant, probably due to the small sample size. The _cons coefficients which represent the regression equation constant is equal to 542.5.

More broadly, the t- statistics for all variables are higher than the first iteration which indicates higher accuracy compared to the first iteration, but the P values remain within the high-range showing the need to increase sample size and incorporate additional variables in the regression equation to gain more accurate results.

- Number of FDI Projects – first iteration:

Below are the processing results of the first iteration followed by a detailed explanation of their technical and economic significance.

```
9 . reg ni time DSS did1, r

Linear regression                               Number of obs     =         34
                                                F(3, 30)          =       0.05
                                                Prob > F          =     0.9870
                                                R-squared         =     0.0045
                                                Root MSE          =     4.4714
```

ni	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
time	.2184164	.8821752	0.25	0.806	-1.583226	2.020059
DSS	.6370107	1.820219	0.35	0.729	-3.080373	4.354394
did1	-.9786477	3.289645	-0.30	0.768	-7.696999	5.739704
_cons	3.936388	2.008569	1.96	0.059	-.1656583	8.038434

Figure 26:Processing results of the first iteration - Number of FDI projects

Utilizing the same data set for the model with a total number of 34 observations while keeping the dependent variable as the number of FDI projects instead of FDI amounts generated the following regression model characteristics. The P value increased in this case, indicating that number of FDI projects is not strongly related to the time/location independent variables. The low value of the R-squared (4.5%) signifies that other factors are more relevant to the number of FDI projects which are not considered is this model. Both indicators in addition to the root MSE value (4.47) demonstrates a lower level of model fit compared to the first approach which considered the amount of FDI instead of number of FDI projects.

The time and DSS coefficients are showing a positive correlation between the time and the number of FDI projects while also highlighting that the number of projects increases if the country was South Sudan compared to Sudan. The did1 coefficient is however negatively related to the number of projects, highlighting a decline in the number of FDI projects in South Sudan following the separation from Sudan (after 2011). The regression equation constant is positive,

signifying that at least 3 projects will occur at time 0 in Sudan (from a pure numerical point of view).

The low values of the t- statistics (lower than 1.96 for a confidence interval of 95%) proposes the existence of other variables that play a more significant role in the number of FDI projects coming into a country while the higher values of p value imply a low statistical significance of the time and geographical with respect to the number of FDI projects.

- Number of FDI Projects – Second iteration:

Below are the processing results of the second iteration followed by a detailed explanation of their technical and economic significance.

```
10 . reg ni i.time DSS did1, r

Linear regression                               Number of obs     =         34
                                                F(4, 29)          =       4.65
                                                Prob > F          =     0.0051
                                                R-squared         =     0.1272
                                                Root MSE          =     4.2583
```

ni	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
time						
2	3.625	1.428083	2.54	0.017	.7042431	6.545757
3	-.3472222	1.658506	-0.21	0.836	-3.739248	3.044804
DSS	-.4444444	1.374295	-0.32	0.749	-3.255194	2.366305
did1	1.319444	3.021845	0.44	0.666	-4.860923	7.499812
_cons	3.722222	1.271675	2.93	0.007	1.121355	6.323089

Figure 27:Processing results of the first iteration - Number of FDI projects

The results of the second iteration of the second trial is aligned with the results of the second iteration of the first trial which shows that the second time period (during which the oil

production started in both countries) witnessed an increase in the number of FDI projects compared to the following period which encountered a decline in the number of projects for both countries.

The consideration of separate time periods also showed that did1 coefficient became positive suggesting an increase in the number of FDI projects when the country is South Sudan and time is after 2011, consistent with the expectation that lifting sanctions may increase the attractiveness of the country to FDI, although the results are again far from any statistical significant.

Results Interpretation

As seen in the analysis results, the statistical aspects of the regression model point to the existence of other independent variables that constitutes a greater influence on the amount and number of FDI projects coming into the country which is not considered in the current model. Another major sign is the high level of data noise within the data set used, which is creating a disturbance in the statistical aspect of the model (taking the p values as an example).

Deep diving into the model we can say that relative to the reference period 1, for both countries Sudan and South Sudan, the investments amount significantly increase in period 2 (positive and significant coefficient of time = 2), and decrease, although not significantly, in period 3.

All over, South Sudan receives less investments, but the difference is not significant due to the high noise in the data which is signaled by the negative and insignificant coefficient of DSS.

The effect of lifting the sanctions on FDI is positive, but also insignificant indicated by the positive and insignificant coefficient of DID1.

From an economical point of view and when aligning the model results with the descriptive background about the major events in both countries; it can be seen that the number of FDI projects and its amounts was more affected by the oil production compared to the political situations and implications such as South Sudan separation from Sudan and the existence/lifting of the sanctions as both countries witnessed an increase in the number/amounts during the oil production period despite been under the sanctions at the time, and no major increase occurred for South Sudan after its separation from Sudan in terms of FDI amounts despite that the sanctions were lifted.

Results Conclusion and Recommendations

A general conclusion could be perceived from this, which is that the amount of FDI and the resources and their production (such as oil) compared to the political aspects or geographical aspects of that country.

To further solidify the analysis results it is recommended to replicate and expand the analysis with a bigger data set with a higher number of observations while including other variables such as exports amounts, imports. It is also recommended to reduce the data noise by utilizing statistical techniques such as the application of covariance among the independent variables.

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