



# **FDI and ODA in SSA: Does it contribute to the SDGs?**

A dissertation  
presented to

**The Development Finance Centre (DEFIC)**  
Graduate School of Business  
University of Cape Town

In partial fulfilment  
of the requirements for the Degree of  
**Master of Commerce in Development Finance**

by  
Candice Mathews  
MTHCAN004

10<sup>th</sup> February 2023

Supervisor: Professor Abdul Latif Alhassan

The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

## **Declaration**

1. I know that plagiarism is wrong. Plagiarism is to use another's work and pretend that it is one's own.
2. I have used the APA convention for citation and referencing. Each contribution to, and quotation in, this project from the work(s) of other people has been attributed, and has been cited and referenced.
3. This dissertation is my own work.
4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.
5. I acknowledge that copying someone else's assignment or essay, or part of it, is wrong, and declare that this is my own work.

Signature: 

|                     |
|---------------------|
| Signed by candidate |
|---------------------|

Candice Mathews

Student Number: MTHCAN004

## **ABSTRACT**

Sub-Saharan Africa (SSA) faces a persistent funding gap in financing its Sustainable Development Goals (SDGs). External finance flows are regarded as a key source of SDG financing. Therefore, can foreign flows in the form of Foreign Direct Investment (FDI) and Official Development Assistance (ODA) assist SSA in achieving the SDG goals? This study utilises panel data in a fixed effects model to investigate the influence of FDI and ODA on a sample of 32 SSA countries' SDG scores. The findings show a significant and positive influence of FDI on sustainable development, most notable in East and Southern African regions and with resource-rich countries. This impact is reflected in the overall general score and goals related to the economic and social pillars of the SDGs. However, there is no significant impact on the goals associated with the governance pillar. In fact, FDI has a negative relationship with the environmental aspect of sustainability. On the other hand, the social SDGs have been significantly and positively impacted by ODA. The study contributes to the current literature dedicated to financing sustainability, which can be helpful to emerging economies in understanding how to attract the right kind of external financing to close their funding gaps and meet their sustainable agenda.

## Table of Contents

|                                                         |                                     |
|---------------------------------------------------------|-------------------------------------|
| <i>Chapter 1 Introduction</i> .....                     | 1                                   |
| <i>Chapter 2 Literature Review</i> .....                | 8                                   |
| 2.1 Introduction .....                                  | 8                                   |
| 2.2 Definition of concepts .....                        | 8                                   |
| 2.2.1 Sustainable development.....                      | 8                                   |
| 2.2.2 Foreign Direct Investment.....                    | 10                                  |
| 2.2.3 Official Development Assistance.....              | 10                                  |
| 2.3.1 SDG overview .....                                | 11                                  |
| 2.3.2 Overview of FDI in SSA .....                      | 13                                  |
| 2.3.3 Overview of ODA in SSA.....                       | 15                                  |
| 2.4 Theoretical Framework .....                         | 16                                  |
| 2.4.1 Official Development Assistance.....              | 16                                  |
| 2.4.2 Foreign Direct Investment.....                    | 17                                  |
| 2.5 Empirical literature.....                           | 21                                  |
| 2.5.1 Official Development Assistance and Growth.....   | 21                                  |
| 2.5.3 Foreign Direct Investment.....                    | 25                                  |
| <i>Chapter 3 Methodology</i> .....                      | 30                                  |
| 3.1 Introduction .....                                  | 30                                  |
| 3.2 Research approach.....                              | 30                                  |
| 3.3 Research design.....                                | 30                                  |
| <i>Chapter 4 Discussion of Findings</i> .....           | 38                                  |
| 4.1 Introduction .....                                  | 38                                  |
| 4.2 Descriptive statistics.....                         | 38                                  |
| 4.3 Correlation matrix .....                            | 39                                  |
| 4.5 Results and discussion.....                         | <b>Error! Bookmark not defined.</b> |
| <i>Chapter 5 Conclusions and Recommendations</i> .....  | 46                                  |
| 5.1 Introduction .....                                  | 46                                  |
| 5.2 Summary of findings and policy recommendations..... | 46                                  |
| 5.3 Recommendations for further research .....          | 48                                  |
| <i>References</i> .....                                 | 49                                  |

## **LIST OF TABLES AND FIGURES**

### **FIGURES**

|          |                                               |         |
|----------|-----------------------------------------------|---------|
| Figure 1 | Sources of SDG financing                      | Page 4  |
| Figure 2 | Pillars of sustainable development            | Page 9  |
| Figure 3 | Snapshot of the Sustainable Development Goals | Page 11 |
| Figure 4 | FDI Trends                                    | Page 14 |
| Figure 5 | ODA Trends                                    | Page 15 |

### **TABLES**

|         |                                                                      |         |
|---------|----------------------------------------------------------------------|---------|
| Table 1 | Sustainable Development Goals                                        | Page 12 |
| Table 2 | SDG Index Ranking for Africa 2020                                    | Page 13 |
| Table 3 | African Country Classifications                                      | Page 31 |
| Table 4 | Variable Definitions and Descriptions                                | Page 35 |
| Table 5 | Descriptive Statistics                                               | Page 39 |
| Table 6 | Correlation Matrix                                                   | Page 40 |
| Table 7 | Variance Inflation Factors (VIF)                                     | Page 41 |
| Table 8 | Fixed Effect Regression Model for pillars of sustainable development | Page 45 |

## **LIST OF ACRONYMS AND ABBREVIATIONS**

|        |                                                        |
|--------|--------------------------------------------------------|
| AAAA   | Addis Ababa Action Agenda                              |
| CDC    | Commonwealth and Development Office                    |
| FDI    | Foreign Direct Investment                              |
| GDP    | Gross Domestic Product                                 |
| IMF    | International Monetary Fund                            |
| LDC    | Least Development Countries                            |
| MDG    | Millennium Development Goals                           |
| ODA    | Official Development Assistance                        |
| OECD   | Organisation for Economic Co-operation and Development |
| SD     | Sustainable Development                                |
| SDG    | Sustainable Development Goals                          |
| SSA    | Sub-Saharan Africa                                     |
| UN     | United Nations                                         |
| UNCTAD | United Nations Conference on Trade and Development     |
| WDI    | World Bank Development Indicators                      |

## **ACKNOWLEDGEMENT**

I give thanks to the Lord for the patience and opportunity to pursue this academic journey. Additional thanks to a dedicated and patient supervisor, Dr Abdul Latif Alhassan, for his wise words, counsel, and superb insights. I thank my family and friends who have been instrumental in my journey with their unwavering support and source of inspiration over the past two years. What an amazing journey.

## **Chapter 1 Introduction**

### **1.1 Background of the study: The Sustainable Agenda in Sub-Saharan Africa**

The United Nations (UN) developed the 2030 Agenda for Sustainable Development, encompassing 17 goals to be achieved by the year 2030. The aim was to end poverty, protect the planet, ensure people of prosperous well-being, foster peaceful inclusive societies, and strengthen global partnerships (UN General Assembly, 2015). The Sustainable Development Goals (SDGs) require US\$2.5 trillion for developing countries, a now well-known statistic among governments, policymakers, and development finance institutions (UNCTAD, 2014).

Since the adoption of the SDGs in 2015, some progress on SDG investment has been made across the 10 applicable sectors. That being said, the growth evidenced to date is not sufficient to close the persistent financing gap (UNCTAD, 2020). Further exaggerating this challenge, is the detrimental impact of COVID-19 across the globe, particularly in developing economies. Existing challenges in meeting this gap prior to the health pandemic has now been intensified, and threatens the ability of developing nations to achieve their development goals. According to a recent IMF note, it estimates a delay in achieving the SDGs goals by more than a decade (Dora Benedek et al., 2021).

A UNCTAD press release found Africa particularly vulnerable to the impact of COVID-19, and estimates a US\$154 billion recovery price tag in addition to the already challenging “pre-existing annual SDG finance gap of US\$200 billion” (UNCTAD, 2021). In addition to responding to the COVID-19 pandemic, governments in Sub-Saharan Africa (SSA) still face the pre-existing challenge of financing their SDGs. They will now have to contend with trade-offs on how to best allocate their limited resources to advance their nations. The US\$200bn projection remains valid today according to a recent review, and continues to be a crucial priority for governments and policymakers (UNCTAD, 2020). SDG global investment is lagging, posing a risk to the achievement of the 2030 Agenda (Zhan, 2014).

External flows are regarded as a key source of SDG financing, complemented with domestic resources (public and private) (OECD, 2020). Cross-border flows to SSA grew from US\$143bn in 2016 to US\$157bn in 2017, a 6% year-on-year increase (Doumbia & Lauridsen, 2019). Foreign Direct Investment (FDI) as a percentage of external finance is on average 39% (2013-2017) for developing economies, representing the largest source of external finance in developing economies. In contrast, the ODA share in least-developed countries (LDCs) is 36%, compared to 21% for FDI in the same period (UNCTAD, 2018). Africa FDI flows grew 11% to US\$46bn in 2018, whereas the previous two years reflected declines year-on-year. This increase is attributable to an increase in non-resource FDI (UNCTAD, 2019).

Historically, international development focused on increasing the amount of foreign aid or Official Development Assistance (ODA) to help solve global challenges (Runde et al., 2016). The role of ODA financing as the dominant source of development finance has shifted in the past 15 years (Bandura, 2017). ODA has now taken on the role of “catalyst” in mobilising additional investment for the SDGs, and private finance is now a key source of sustainable development financing. In fact, ODA and FDA are both explicitly referenced in the 2030 Agenda and Addis Ababa Action Agenda (AAAA). An extract in the 2030 Agenda includes the following:

*“10b: Encourage official development assistance and financial flows, including foreign direct investment to states where the need is the greatest, in particular least-developed countries.”*

Likewise, reference to FDI in the Addis Ababa Action Agenda (UN, 2015):

Paragraph 45: *“We recognise the important contribution that direct investment, including foreign direct investment, can make to sustainable development, particularly when projects are aligned with national and regional sustainable development strategies.”*

While the public sector still plays the primary role in mobilising capital for achieving the SDGs, private sector financing in the form of foreign capital flows constitute an important part of the funding strategy for African countries. As a result, the existing role of ODA still remains, however in combination with playing the “catalytic” role in mobilising private capital for sustainable development.

The notion of private capital mobilisation is in response to diminishing and muted public aid, constrained public budgets, and rising Africa debt levels. This, coupled with the appetite of international investors searching for better yields than what is currently offered in developed markets, is accelerating this need. In fact, the crowding-in private finance concept is not new, and dates back to 1948 when the CDC Group was first established in the United Kingdom, Centre for Strategic and Internal Studies (Bandura, 2017).

In order to leverage private finance for sustainable development, cognisance will need to be given to the existing trend and flows of capital, the importance of the enabling environment, and how best to manage both public and private finance (World Bank, 2019). However, not all SDG type projects will have attractive risk-return metrics, and many might not. Therefore, private sector engagement will vary across the 17 goals and across the different types of financing. Nevertheless, nations through ODA financing and their respective planning practices can allocate their limited fiscal resources effectively to attract private finance for development objectives (World Bank, 2019).

The Africa SDG Index report was first created in 2018, and serves to determine African countries' current status and assess their progress in achieving the 17 goals. Highlights from the 2020 report indicate that North Africa is, on average, the best performer. The top performer for 2020 is Tunisia with a score of 67.10 (2019: Mauritius, 66.79). The greatest challenges lie in Goal 3 (good health and well-being), Goal 9 (infrastructure), and Goal 16 (peace, justice, and strong institutions). Goals making relatively good progress in Africa are related to Goals 13 and 9, climate action and responsible consumption, and production respectively.

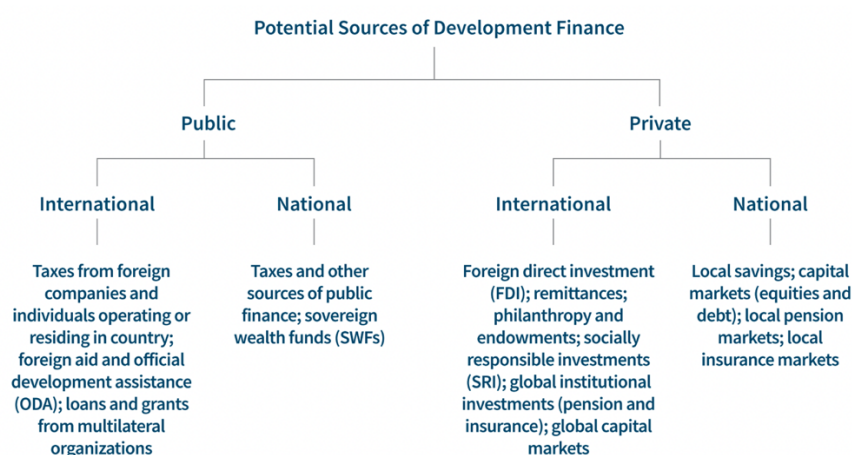
This research seeks to understand how external finance, specifically ODA and FDI, contribute or influence the achievement and progress of the SDG goals in SSA. This study will enable policymakers, governments, and development finance institutions to understand empirically the impact these flows will have on their sustainable development agenda, and will inform how policy should be shaped to attract these flows and ensure that they are effective in their relative countries.

Existing research on foreign flows, such as FDI and ODA, tend to focus on the role these financing flows play from an economic and/or environmental perspective. There is an increasing volume of literature dedicated to the achievement of the sustainable development agenda from an African perspective (Aguayo-Tellez, 2012; Asongu & Nwachukwu, 2017; Lim et al., 2016; Lopes et al., 2020). The literature to date does not consider the role and impact of ODA and FDI on the realisation of the sustainable development agenda and their contribution to the progress, specifically in SSA (Asiedu, 2002; Aust et al., 2020; Gui-Diby & Renard, 2015; Lopes et al., 2020).

## 1.2 Research problem

According to the World Bank (2019), concerted and coordinated efforts will be required by national governments to overcome the obstacles related to financing the sustainable development agenda. It alludes to financial challenges, systemic challenges in enabling, legal and regulatory environments, and behavioural challenges connected to skills and capacity (World Bank, 2019). In regard to the financing challenges, there is a requirement for increased domestic revenue mobilisation, while foreign flows are becoming increasingly important in closing the SDG funding gap. Figure 1 below depicts the potential sources of SDG financing, both from a domestic and from a foreign perspective.

**Figure 1: Sources of SDG financing**



*Source: OECD Global Outlook on Financing for Sustainable Development, 2021*

The fundamental question then becomes, “How can foreign flows in the form of FDI and ODA help SSA governments, policymakers, and development finance institutions close their SDG funding gap and achieve their sustainable development ambitions?” This is also now commonly known as the “billions to trillions” challenge. The role of donors, aid agencies, and the development finance community have an anchoring role to play in channelling foreign flows into SSA.

The above objectives translate into these specific questions, which this study seeks to investigate:

1. What is the role of FDI and official development assistance in achieving the SDG goals and objectives in SSA?
2. What roles does FDI and ODA assistance play in achieving the SDGs, and how does this influence differ across the 17 SDG goals in SSA?

The IMF estimate that by 2030, SSA will have the second largest spending requirement in the world at 0.4% of (2030) world GDP, and note that this reflects the development lag in this region (Gaspar et al., 2019). Although a meaningful portion of this gap can be filled by the public sector through the mobilisation of domestic revenues and increased tax revenues (if realised), there remains a gap (Doumbia & Lauridsen, 2019). This gap was challenging before the onset of COVID-19, and is now widening. According to (Rozenberg & Fay, 2019), the private sector accounts for only 9-13% of total infrastructure investments in low to middle income countries, reflecting the dominance of public sector infrastructure investment.

Many innovative solutions have been devised to leverage private finance, however the challenge of scaling this kind of finance for development remains. Catalysing the private sector is understood across the development finance community; it is rather the implementation challenges that seem to persist (World Bank, 2019).

Each nation will need to determine their optimal mix of funding (both international and domestic) based on their development strategy and needs assessments in achieving their SDG ambitions. As stated by other authors, how each country will implement the goals depends on political preferences, context-specific challenges, and their own circumstances (Alleyne et al., 2015; Horn & Grugel, 2018).

Existing research on foreign flows such as FDI and ODA tend to focus on the role these financing flows play from an economic and/or environmental perspective. There is an increasing volume of literature dedicated to the achievement of the sustainable development agenda from an African perspective (Aguayo-Tellez, 2012; Asongu & Nwachukwu, 2017; Lim et al., 2016; Lopes et al., 2020). The literature to date does not consider the role and impact of ODA and FDI on the realisation of the sustainable development agenda and their contribution to the progress, specifically in SSA (Asiedu, 2002; Aust et al., 2020; Gui-Diby & Renard, 2015; Lopes et al., 2020).

This study will help governments and policymakers in Africa understand the role of external financing, both ODA and FDI in achieving their sustainable development agenda.

### **1.3 Research questions and objectives**

The overarching objective of this study is to explore the role of external financing flows (ODA and FDI) in achieving the SDGs, and how those flows have influenced progress to date in SSA. Specifically, this research seeks to:

1. Investigate the extent of external financing in meeting the SDG goals and objectives.
2. Examine the relationship FDI and ODA have in achieving the sustainable development agenda.

### **1.4 Justification and assumptions**

The literature to date largely examines the role and effectiveness of FDI and ODA on either macro- or micro-economic growth. There is a need to explore the influence of FDI and ODA on the integrated aspects of sustainability, i.e., economic, environmental, and social to achieve the 2030 Agenda (Bebbington & Unerman, 2018; Hazelton, 2015; Christ & Burritt, 2017); Aust et al., 2020). In addition, while there is a growing body of literature dedicated to the financing of the SDGs, there is scant empirical coverage, particularly for SSA countries, where the pervasive challenges lie. It is therefore important that more robust empirical enquiry and research focus will allow for more informed decision making and policy formulation around the feasibility of sourcing foreign flow financing dedicated to the SDGs.

The researcher understands that there is generally a lack of data, particularly African sustainability data. Furthermore, there is no single source of data to identify the variables and instruments that determine the extent of foreign sources of funding. The World Bank Development Indicator database and the 2020 Africa Index report will be the primary sources of data for this paper, complemented by the World Governance Indicators database. The researcher will be guided by the literature review to identify and define the pertinent variables that play a role in achieving the sustainable development agenda.

### **1.5 Organisation of the study**

Chapter 1: Introduction and background context of foreign flows playing a role in the achievement of the sustainable development agenda.

Chapter 2: A detailed literature review describing the conceptual frameworks and definitions as foreign flows as an approach to closing the SSA SDG financing gap, and the conditions to attract such foreign flows.

Chapter 3: Outlines the quantitative methodological approach to be employed to explore and examine foreign financing in SSA and their role in achieving the sustainable development agenda.

Chapter 4: Discussion of the detailed empirical analysis and results of the quantitative data collected.

Chapter 5: Concludes the paper with an interpretation of the quantitative empirical results, policy recommendations, and potential areas for new and future research.

## **Chapter 2 Literature Review**

### **2.1 Introduction**

The section will focus on the definitions of pertinent concepts and terms, including trends in relation to sustainable development, FDI and ODA, an overview of the SDGs, and progress to date. It will conclude with pertinent theoretical and empirical research on the research goals. The SDGs have brought attention to external financing's potential role in achieving these goals by 2030. For the purposes of this paper, two sources of external financing are considered: ODA and FDI. Given the difference in the nature, type, and motivation of each of these flows, we expect different effects on sustainable development. In principle, ODA and FDI can affect sustainable development through a diverse set of channels, with effects being either positive, negative, or insignificant.

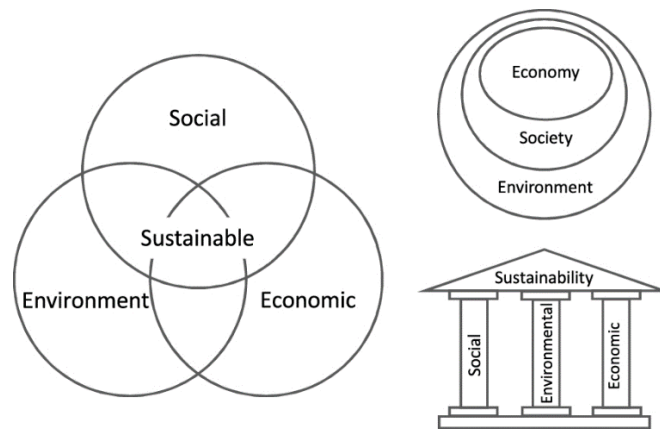
### **2.2 Definition of concepts**

#### **2.2.1 Sustainable development**

In the 1980s, the concept of sustainable development was established in the development dialogue, with the most frequently cited definition referring to the 'development that satisfies the needs of the present without comprising the ability of the future to meet their own needs' (Brundtland, 1987). Although the term is often associated with different definitions and interpretations, this definition sticks in the public discourse.

In 2015, the nations that are members of the UN agreed on the SDGs which encapsulates three main pillars to achieve inclusive growth and shared prosperity given the interconnectedness of the world. The SDGs' social, economic, and environmental goals are represented by these three pillars, which interconnect and integrate, see Figure 2.

*Figure 2: Pillars of SD*



*Source: “Three pillars of sustainability: in search of conception originals” (Purvis et al., 2019)*

Environmental sustainability refers to the advancement of human welfare by protecting the limited raw materials used, and that waste is appropriately managed while protecting both humans and the environment. Economic sustainability is the process of adequately utilising resources for long-term growth, without damaging the social and environmental progress and sustainability. Social sustainability refers to upholding values that promote equality and respect for individual rights through the integration of community, social responsibility, human rights, and health and safety matters.

The UN Agenda established the SDGs, which address the three aforementioned pillars and consists of 17 individual goals, 232 indicators, and 169 targets. In this context, these are goals to be achieved worldwide by 2030 (United Nations, 2015). Further detail is elaborated in the SDG section overview. A comprehensive strategy for ensuring global sustainability is encapsulated by this overarching framework. They recognise that the SDGs cannot be accomplished in isolation from one another, which is why they have three pillars.

It should come as no surprise that SSA has faced difficulties with development over the years, as far back as the 1960s. As result, SSA has experimented with a variety of development strategies. However, many SSA economies still lag in most development areas, evident of the failed development reforms. Persistent challenges range from economic security, political instability, and corruption. Other challenges include rapid urbanisation, poor and failing infrastructure, and illiteracy. Although the Millennium Development Goals (MDGs) had made

great strides in significantly reducing global poverty rates, poverty still remains an endemic problem in SSA, where the World Bank estimates that poverty decreased by 1.6% between 2015 and 2018. Despite the reduction in poverty rates, it was insufficient in light of the rising rate of population growth, and extreme poverty is anticipated to affect nearly half a billion individuals only in 2018 (World Bank, 2020). Given the context, adoption of the ambitious SDG goals is meant to overcome the limitations and unresolved issues of the MDGs.

### **2.2.2 Foreign Direct Investment**

“FDI is defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate)” (UNCTAD, 2022). This is widely used and aligned to the OECD and IMF definitions. The “lasting interest” is what makes FDI different to that of other external financial flows, as multinational companies (MNCs), private capital are assumed to drive benefits to the host country through various channels.

A key difference between the motive and nature of these flows (ODA and FDI), is that FDI is at market rates. Profit maximisation will be the primary goal of private investors, not economic and social progress.

### **2.2.3 Official Development Assistance**

Money given by sovereign states (donor countries) is known as foreign aid or ODA to developing nations on the Organisation for Economic Co-operation and Development’s (OECD) list of “developing countries and territories”. ODA can be given bilaterally or by way of a multilateral organisation such as the UN or a multilateral development bank. It also includes technical assistance, grants, and loans with a concessional grant component, i.e. soft loans. Financial services related to the military, such as loans and credit, are not included (OECD 2020a).

There are three aspects of ODA which set it apart from other sources of external financing: i) official flows by governments; ii) at concessional terms (not tied to the market); and iii) with the primary objective of enhancing welfare and economic growth. These source of funds can be classified into bilateral and multilateral flows. Bilateral flows are those that come directly from official sources in the recipient nation to official sources in the donor nation (OECD, 2016). Multilateral flows are those flows channelled through multilateral organisations such as the World Bank with a development mandate which are used to fund their own programmes.

## 2.3 Overview of context

### 2.3.1 SDG overview

In 2015, the implementation of the “Transforming our World: The resolution establishing the 2030 Agenda” was passed, exemplifying the aim of creating a sustainable and inclusive future by 2030. There are 169 targets and 17 goals in the 2030 Agenda, referred to in Figure 3 below.

*Figure 3: Snapshot of the SDGs*



*Figure: UN 2030 Agenda: 17 Goals (United Nations, 2015)*

Table 1 shows the goals arranged in accordance with the SDG pillars: economic, social, environmental, and governance, that connect the goals.

*Table 1: Sustainable Development Goals*

| Pillars              | Goals | Description                              |
|----------------------|-------|------------------------------------------|
| <b>Social</b>        | 1     | No poverty                               |
|                      | 2     | Zero hunger                              |
|                      | 3     | Good health and well-being               |
|                      | 4     | Quality education                        |
|                      | 5     | Gender equality                          |
|                      | 6     | Clean water and education                |
|                      | 7     | Affordable and clean energy              |
| <b>Economic</b>      | 8     | Decent work and economic growth          |
|                      | 9     | Industry, innovation, and infrastructure |
|                      | 10    | Reduced inequalities                     |
|                      | 11    | Sustainable cities and communities       |
|                      | 12    | Responsible consumption and production   |
| <b>Environmental</b> | 13    | Climate action                           |
|                      | 14    | Life below water                         |
|                      | 15    | Life on land                             |
| <b>Governance</b>    | 16    | Peace, justice, and strong institutions  |
|                      | 17    | Partnerships for the goals               |

*Source: UN SDG, 2020*

Since all nations must carry out the goals, data and related metrics are essential for assisting nations in doing so. The Sustainable Development Report was created to assess each nation's progress in this regard. The Sustainable Development Report, established in 2016, assists countries in measuring, understanding, and executing on challenges to meet the UN goals (SDGs Centre for Africa, 2020). African countries haven published their statistics annually and their progress. In light of the lack of data, the Africa indicators are closely aligned to the official SDG indicators and, as such, the Global Index or the 2019 Africa Report cannot be compared with the Africa Index.

Based on 92 indicators related to all 17 goals, the Africa SDG Index ranks 52 nations. This index score is a number from 0 to 100, with 100 being the highest. For the 2020 results, three North African countries were present: Tunisia (1); Morocco (3); and Algeria (5). Only SSA nations will be discussed for the purposes of this paper. Table 2 depicts the scores per country for the year 2020.

**Table 2: SDG Index Ranking for Africa 2020**

| Rank | Country               | Score | Rank | Country                      | Score |
|------|-----------------------|-------|------|------------------------------|-------|
| 1    | Tunisia               | 67.10 | 27   | Zambia                       | 53.25 |
| 2    | Mauritius             | 66.79 | 28   | Mali                         | 53.22 |
| 3    | Morocco               | 66.30 | 29   | Eswatini                     | 52.94 |
| 4    | Algeria               | 65.90 | 30   | Libya                        | 52.70 |
| 5    | Cabo Verde            | 65.59 | 31   | Malawi                       | 52.64 |
| 6    | Egypt                 | 65.44 | 32   | Lesotho                      | 52.43 |
| 7    | Botswana              | 63.93 | 33   | Mozambique                   | 52.17 |
| 8    | Ghana                 | 62.69 | 34   | Sierra Leone                 | 51.59 |
| 9    | South Africa          | 62.20 | 35   | Djibouti                     | 51.30 |
| 10   | São Tomé and Príncipe | 61.61 | 36   | Angola                       | 51.18 |
| 11   | Senegal               | 58.69 | 37   | Republic of Congo            | 50.81 |
| 12   | Kenya                 | 58.54 | 38   | Niger                        | 50.47 |
| 13   | Namibia               | 58.31 | 39   | Burundi                      | 50.37 |
| 14   | Gabon                 | 58.07 | 40   | Guinea                       | 50.20 |
| 15   | Côte d'Ivoire         | 57.67 | 41   | Liberia                      | 49.33 |
| 16   | Rwanda                | 57.65 | 42   | Nigeria                      | 48.84 |
| 17   | Tanzania              | 57.00 | 43   | Madagascar                   | 47.94 |
| 18   | Burkina Faso          | 55.90 | 44   | Sudan                        | 47.85 |
| 19   | Uganda                | 55.71 | 45   | Comoros                      | 46.98 |
| 20   | The Gambia            | 55.53 | 46   | Guinea-Bissau                | 46.37 |
| 21   | Togo                  | 54.41 | 47   | Democratic Republic of Congo | 44.83 |
| 22   | Ethiopia              | 54.15 | 48   | Eritrea                      | 44.17 |
| 23   | Zimbabwe              | 53.79 | 49   | Somalia                      | 42.73 |
| 24   | Mauritania            | 53.78 | 50   | Chad                         | 40.34 |
| 25   | Benin                 | 53.53 | 51   | Central African Republic     | 38.05 |
| 26   | Cameroon              | 53.37 | 52   | South Sudan                  | 32.36 |

*Source: Africa Report, 2020 (SDGs Centre for Africa, 2020)*

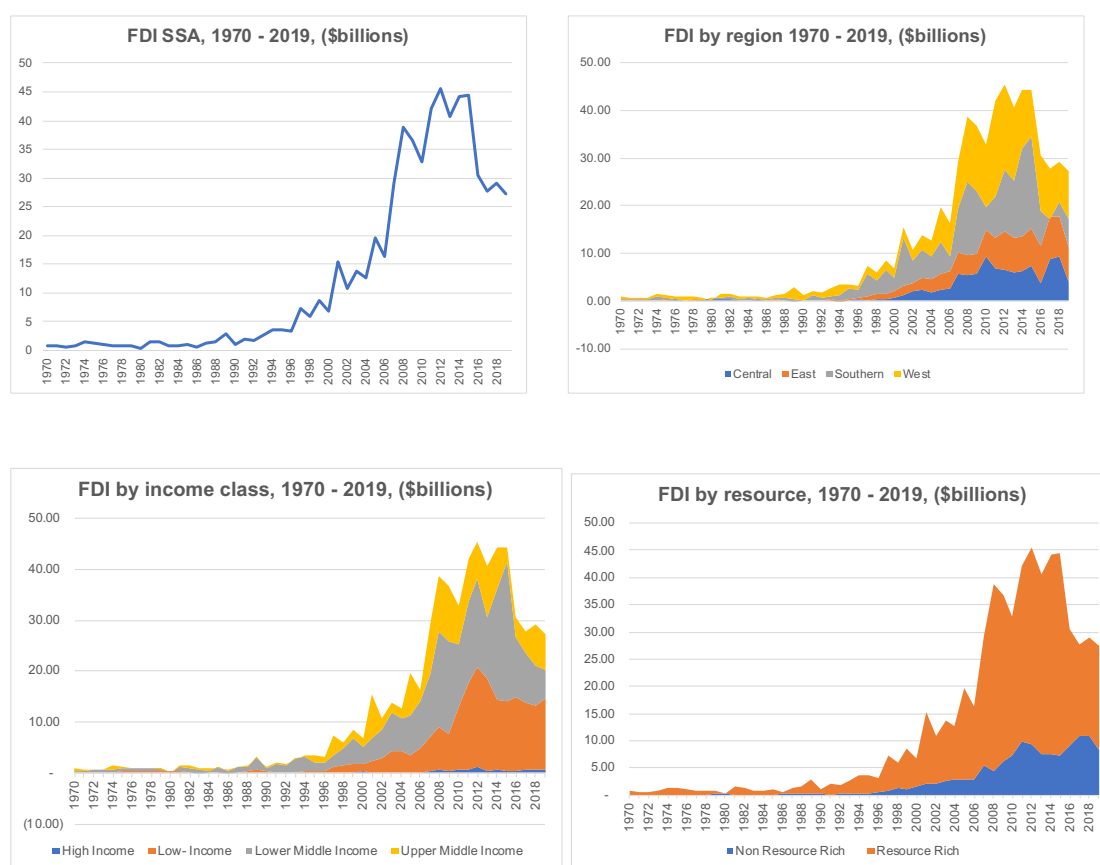
The top five highest ranking SSA countries for 2020 are: Mauritius (66.79); Cabo Verde (65.59); Botswana (63.93); Ghana (62.69); and South Africa (62.20). The lowest ranking SSA countries are: South Sudan (32.36); Central African Republic (38.05); Chad (40.34); Somalia (42.73); and Eritrea. All the low-ranking countries are classified as LICs and Non-Resource-Rich nations in SSA, and comprise of fragile states with increased poverty levels and conflict. The average score for the SSA countries is 50.62, which means that SSA is only midway toward achieving the SDGs after four years.

### 2.3.2 Overview of FDI in SSA

Over the past few decades, FDI constitutes a significant source of external capital in developing nations, and has played a crucial role in SSA. FDI flows to SSA have increased substantially

since 1970, as depicted in Figure 4. The independence of many SSA countries, government reforms in the late 1990s and 2000s (Loots and Kabundi, 2012), and improved economic conditions, resulted in significant inflows to SSA from the 2000s (Abdulai, 2007). Significant events resulting in large declines of inflows to SSA include the 9/11 terrorist attacks, the 2009 Global Financial Crisis, the 2012 European Debt Crisis, and the 2014 oil price shock. Recently, the COVID-19 pandemic has increased the strain on FDI flows.

**Figure 4: FDI trends**



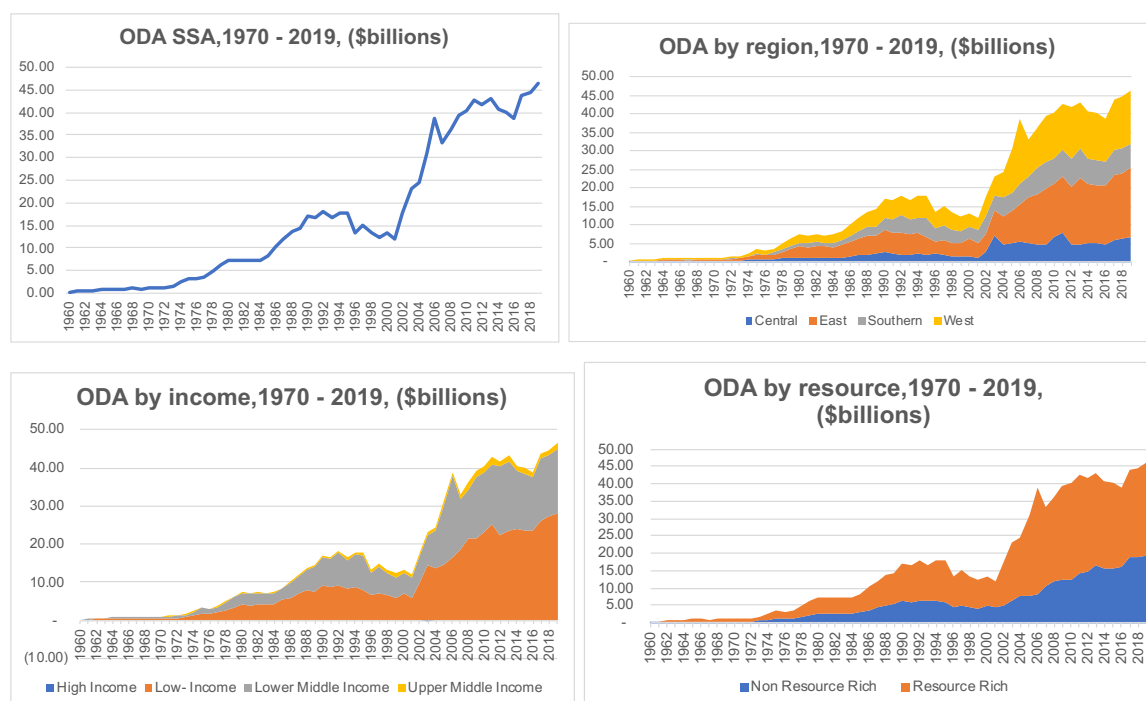
*Source: Author's compilation, World Bank Indicator Database*

The majority of FDI into SSA came from the southern and northern regions in the earlier decades of FDI inflows. Interestingly, during the past five years, there was a shift of inflows towards central and eastern regions. Historically, the sources of FDI to SSA were largely from three main economies, i.e., the United States, United Kingdom, and France. However, in recent years, China and India have emerged as new partners, highlighting the move away from traditional sources to new ones. In relation to FDI inflows within each country group, there are differences in FDI inflows, where UMIC and LMIC inflows are larger than LIC inflows.

Figure 4 depicts the shift in flows from resource-rich to non-resource-rich nations with resource-poor nations now showing a growth trend throughout the period compared to a decrease in FDI to resource-rich nations. FDI to SSA decreased to US\$32bn in 2019, following a sharp increase in the previous year, and this was largely due to a decline in investment in three of the largest economies, Nigeria, South Africa, and Ethiopia (UNCTAD, 2020).

### 2.3.3 Overview of ODA in SSA

**Figure 5: ODA trends**



*Source: Author's compilation, World Bank Indicator Database*

Figure 5 depicts the trends of ODA over the years at overall, regional, income, and resource classifications. ODA to SSA since the 1960s steadily increased to US\$48.6bn in 2019, with declines noted between 1990 and 2000, and again in 2009. Aid was largely for supporting economic development and nurturing welfare. Since the 2000s, SSA has been the top recipient of ODA since it was compared to other developing regions (Fuller, 2002), and still plays a dominant role in development. In the 1980s, aid focused less on economic considerations and more on social goals such as improving health, increasing access to education, and alleviating poverty.

Sources of ODA were largely led by the Organisation of Economic and Development (OECD) countries. However, there has recently been a rise on non-traditional countries such as India, China, and Brazil, amongst others. The East African and West African regions captured the majority share of the inflows to SSA. Tanzania and Ethiopia were the largest recipients for aid in East Africa, with Nigeria and Ghana the largest recipients for West Africa. The top five recipients for aid allocations from 2016 to 2019 were Ethiopia (US\$18bn), Nigeria (US\$13bn), Kenya (US\$10bn), the Democratic Republic of the Congo (US\$10bn), and Tanzania (US\$9.5bn).

Aid has largely been allocated to resource-rich nations, however a shift to non-resource resources has recently been noted. ODA to resource-rich countries reflect a slight decline from 2005 to 2019, whereas the share of ODA to non-resource-rich countries has increased from US\$7.8bn in 2005 to US\$20.23bn in 2019. According to (Lopes, 2020), ODA was mainly allocated to two SDG goals, i.e., peace, justice and strong institutions and healthcare.

## **2.4 Theoretical Framework**

### **2.4.1 Official Development Assistance**

The gap model generally serves as the foundation for aid theory and the associated empirical literature. In general, gap models assert that insufficient savings and foreign exchange limit the rate of economic growth, and foreign aid serves to fill this gap so that a country can grow at the necessary rate.

One of the first gap models is the Harrod-Domar growth model, which assumes that an excess labour supply and growth is limited only by how much capital is available and how productive it is, with capital being determined by savings levels (Sato, 1964). In this scenario, if the government wishes to achieve a particular growth target, it will either need to increase capital productivity or savings levels. However, the savings required to achieve the specified growth are insufficient in developing nations such as SSA. As a consequence, foreign aid plays a role in increasing the investment, i.e., filling the gap, which results in increased growth rates.

Building on this, (Chenery & Bruno, 1962) and (Chenery & Strout, 1966) discovered a foreign exchange gap, where emerging economies lack foreign profits by exports to import goods for future and current investment purposes. Similar to this, ODA can play a role in filling this gap, leading to the dual-gap model, i.e. both a savings and a foreign exchange gap.

A third gap model was developed and introduced by (Bacha, 1990), as not all developing countries have the capacity to generate revenue sufficient to cover their required investment levels. In this case, foreign aid serves as a means of closing a fiscal gap, provided that it is put toward investments. In conclusion, gap models claim that the objective of aid is to bolster domestic revenues, savings, and foreign exchange rates. As a result, there will be more savings and investments, which will result in higher rates of growth.

#### **2.4.2 Foreign Direct Investment**

The theoretical aspects of FDI will be discussed in the following section. The macro- and micro-economic impacts of FDI on host nations are the subject of much of the FDI-related theory.

##### **Economic Pillar**

Neo-classical theory argues that the free movement of investment occurs in poorer economies, until such time that investment returns are equalised across all countries (Alfaro et al., 2008; Solow, 1956). The reasons for this relate to political risk, differences in human capital, and capital market imperfections, which make the expected returns associated with a high level of uncertainty.

However, Lucas observed evidence contrary to neo-classical economic theory. The lack of capital flowing to developing nations is referred to as the Lucas Paradox, as much as economic theory suggests it should (Lucas, 1990). However, the current capital market systems still exhibit the “Lucas Paradox” (Kim & Jun 2022) with evidence that activity in capital markets for developed economies far exceeds that of developing markets. This demonstrates that private capital in emerging nations is more subdued in comparison to developed market economies (OECD, 2020).

The neo-classical growth model asserts that FDI is growth-enhancing because of its effects on increasing the volumes and efficiencies of capital. With regards to the endogenous growth model, it is expected that FDI will contribute to higher economic development, where advanced technological dissemination occurs from the developed economies to host nations (Borensztein et al., 1998a; Li & Liu, 2005a). FDI combines capital, know-how, and technology that enhance the host nation's current level of knowledge base through employment training, up-skilling, dissemination, and the implementation of novel methods of management (Balasubramanyam et al., 1996; de Mello, 1997).

Dunning's Eclectic Paradigm has been one of the main theoretical frameworks used over the years to explain the motives of FDI (Dunning, 1988). The main hypothesis of this theory, also known as the OLI Framework, is divided into three conditions: i) ownership advantages; ii) location advantages; and iii) internalisation advantages. According to this theory, for a firm to engage in multinational activities, such as foreign investments, all three conditions must be fulfilled.

Economic underdevelopment in economies is often seen as a consequence of capital shortages, and FDI is seen as filling the resource gaps. This view stems from the growth mentioned above (Solow, 1956), where growth follows from an increase in capital stock (Calvo et al., 2006). Recent growth models, where growth is supported by the expansion and mobilisation of savings by increasing the capital stock, from this perspective FDI accelerates economic growth by supplementing domestic capital formation. However, stimulating larger FDI flows is not sufficient enough to achieve and sustain long-term economic growth (Rodrik & Kennedy, 2016).

FDI has a wider impact than just directly increasing capital stock in domestic firms. It has an indirect effect on the domestic economy through different linkages (Calvo et al., 2006). Known as a multiplier effect, this relationship is between the foreign subsidiary and the local companies in the value chain, i.e., backward, and forward linkages. Backward linkages are more significant in alleviating poverty (Calvo et al., 2006).

The spillover effects, which can be categorised as vertical or horizontal, are closely related to the multiplier effect. Backward and forward linkages make up the vertical spillover effects (Magombeyi & Odhiambo, 2017). In particular, backward linkages take place when a foreign

company acquires intermediate products from domestic companies, which results in an expansion in production for domestic firms and, in this process, the transfer of technological innovation and skills happens. Forward linkages, on the other hand, refer to an industry growth which utilises the output from foreign firms. The magnitude of these spillover effects will depend on gaps relating to technology, domestic firms' absorptive capacities, institutional capability of host nations, and foreign firm characteristics between foreign and local companies (Magombeyi & Odhiambo, 2017). Technological gaps between local and foreign companies, allow for a heightened spillover effect because of the domestic firm's opportunity to "catch up". The absorptive capacity is dependent on infrastructure and education levels. As a consequence, institutional frameworks and other country characteristics determine the scale of the spillover impact. Horizontal spillovers are externalities that occur when technology is transferred from international companies to domestic companies without any contracts or market (Magombeyi & Odhiambo, 2017; Meyer, 2004). Spillovers are difficult to quantify and measure directly (Meyer, 2004), and it is important to be cognisant that MNEs are first and foremost profit-maximising, and therefore not interested in creating benefits for others if they are harmful to the MNE.

### **Environmental pillar**

There have been discussions regarding the impact of FDI on environmental pollution in response to sustainable development and the climate change agenda. The "Pollution Haven" hypothesis (Walter & Ugelow, 1979) and the "Halo Effect" hypothesis (Birdsall & Wheeler, 2016) are two competing hypotheses that have been presented in prior research.

The theory of the Pollution Haven effect refers to FDI which will seek locations with weak regulations to exploit lax environmental regulations (Mabey & McNally, 1999). In turn, countries will intentionally undervalue their environment to attract FDI. Pollution will rise, and environmental quality will decline in both scenarios. The "halo hypothesis", in contrast, views international investment as spreading cutting-edge management techniques and technologies, thereby improving the environment.

### **Social pillar**

The theoretical work on the connection between FDI and reducing poverty demonstrates the socioeconomic impact of FDI. From a social perspective, FDI can improve welfare through job creation, skills, and infrastructure development. From an economic point of view, FDI boosts

labour productivity, technological development, and human capital (Dhahri & Omri, 2020; Nguea et al., 2020). Human capital and technological advancement are major drivers of economic expansion and ensuring sustainable economic growth following the endogenous growth theory (Solow, 1956).

The fight against poverty may also be influenced by FDI in some way – directly or indirectly. This effect is indirect through spillovers, categorised into horizontal and vertical effects, sometimes referred to as externalities (Meyer, 2004).

When technology is transferred from a foreign company to a local one for the same level of operations, but where there is a technological gap, horizontal spillover effects occur (Farole & Winkler, 2012). Domestic companies copy foreign technologies and products, which causes the technological spillover (Görg & Greenaway, 2004a; Meyer, 2004). Human development is boosted by horizontal spillovers, which occur when a foreign company employs locals and provides technology-adjusted skills training (Calvo et al., 2006; Meyer, 2004). Additional benefits because of this include an upliftment of managerial and business skills (Görg & Greenaway, 2004a).

Vertical spillover effects, which include both backward and forward linkages, occur from interactions between consumers and products across industries, (Görg & Greenaway, 2004a; Sumner, 2007). Backward linkages involve domestic counterparts supplying goods to foreign firms (Görg & Greenaway, 2004a), which leads to an expansion in local production. Forward linkages occur from sector industry growth that used foreign firms' output (Sumner, 2007).

Vertical and horizontal connections with domestic companies in the same industry in developing nations strengthen spillover effects (Görg and Greenaway, 2004; Sumner, 2005), where MNEs through skills development and dissemination of technology results in increased productivity and economic growth. Additionally, this channel contributes to job creation, human capital development, and increasing social services.

The local absorptive capacities of domestic firms, including education and infrastructure levels, increase the capability of these companies to leverage new technologies (Alfaro et al., 2010; Borensztein et al., 1998b). Country characteristics, institutional frameworks, labour market

regulation, and financial development are additional drivers that influence the magnitude of FDI benefits to local businesses and the entire economy (Farole & Winkler, 2012).

The indirect effect of FDI on lowering poverty is discussed at the macro-economic level. Poverty alleviation happens with increased income per capita as a result of FDI. FDI can provide additional investment capital and the advances in technology that are essential for economic growth (Klein, 2001), with this resulting growth contributing to poverty alleviation.

The method of FDI entry should be carefully considered, because its impact on poverty reduction may vary. FDI either takes the form of greenfield or through mergers and acquisitions. It is possible that mergers and acquisitions won't increase industry activity or capital, but rather a change in ownership (Meyer, 2004), which means that the local populace will receive fewer welfare-changing benefits. Greenfield FDI, on the other hand, has more advantages. Furthermore, the host nation may not have the skilled labour necessary for FDI that is either capital-intensive or requires cutting-edge technology (Calvo et al., 2006).

## **2.5 Empirical literature**

### **2.5.1 Official Development Assistance and Growth**

Several studies have examined the role and effectiveness of ODA in SSA (Ojiambo, Oduor, Mburu, & Wawire, 2015; Rodrik, 1990). The results of these investigations are mixed at best, and the debate in the development finance community continues. One strand of literature argues that foreign aid stimulates economic growth by relieving developing countries from the capital scarcity conundrum. It does this by sustaining economic growth through the channels of physical and human capital development (Chenery & Strout, 1966; Easterly et al., 2004; Heinrich et al., 2016; Galiani et al., 2017; Sachs, 2005).

There are studies that have found evidence of ODA positively impacting the economic growth of recipient countries (Armah & Nelson, 2008; Hatemi-J & Irandoust, 2005; Minoiu & Reddy, 2010). In an early study covering SSA countries (Levy, 1988), found empirical evidence that foreign aid in low-income SSA countries contributed to economic growth. In addition, he found that the rate of growth was influenced by capital formation. (Juselius et al., 2014) suggest that aid stimulates growth rates on an analysis of 36 SSA economies. This is opposed to (Nwaogu

& Ryan's, 2015) claim that aid has little effect on SSA's rates of growth. According to research by (Arndt et al., 2015) covering 40 years across 37 SSA countries, aid has not only boosted growth, but also reduced poverty and enhanced social indicators.

A few studies looked at how sector-specific aid affected growth and development (Alvi & Senbeta, 2012, Arndt et al., 2015). Several sectoral studies on aid show the beneficial effects of focused aid (Dreher et al., 2008; Gyimah-Brempong, 2015; Mishra & Newhouse, 2009; Pickbourn & Ndikumana, 2016; U. T. Yogo & Mallaye, 2015). According to a study that looked at aid in 79 developing nations and broke it down by source and type, multilateral aid, and grants, prove adept at poverty alleviation when compared to bilateral aid and loans (Alvi & Senbeta, 2012). A sectoral study by (Kaya et al., 2013) found that aid allocated directly and indirectly to the agriculture sector across 46 countries resulted in poverty reduction.

However, some scholars discovered that certain requirements must be met for ODA to be successful. Examples include (Burnside & Dollar, 2000; Collier & Dollar, 2004; Hirano & Otsubo, 2014), where any positive aid impacts depend on the institutional and policy environment. Although (Hansen & Tarp, 2000) found aid to be effective in the absence of good domestic policy, others found that aid is ineffective when taking into consideration policy design (Easterly, 2005). According to (Doucouliagos & Paldam, 2009; Hansen & Tarp, 2000), poor institutional environments are a common cause of the aid-dependent syndrome in which recipients of aid become overly dependent on it without showing any signs of development. Corruption and rent-seeking behaviour have also been linked in countries with weak institutions, where aid is misappropriated and redirected to purposes other than sustainable development or poverty alleviation (Boone, 1996). Bad policies can also result in the misallocation of aid, preventing development in recipient nations even when good institutions are in place (Chong et al., 2009).

Other studies contend that the impact of aid are affected by the types of donors and their motives. For instance, they find a positive correlation with economic growth when aid is provided in response to the needs of recipients rather than the interests of donors (Kilby & Dreher, 2010). Naturally, there is no guarantee that the various forms of assistance available will have the same results (Clemens et al., 2012).

Another strand of literature claims that increased foreign aid to developing countries has in fact inhibited economic growth due to moral hazard implications and distorted disincentives (Herzer & Morrissey, 2013; Papanek, 1973; Rajan & Subramanian, 2011). Contrary to the above studies, other scholars find that aid does not contribute to the economic growth of recipient countries (Boone, 1996; Rajan & Subramanian, 2005). (Mallik, 2008; Young & Sheehan, 2014) suggest rather a negative or negligible relationship between ODA and economic growth.

(Ekanayake & Chatrna, 2010) and (Jensen & Paldam, 2006) conclude that ODA has no effect on economic growth. No evidence of a positive relationship with growth, irrespective of political setting, was indicated by other studies (Boone, 1996; Rajan & Subramanian, 2011). The Dutch Disease-type effects is suggested by (Nkusu, 2004) as a negative impact of aid, particularly where sizable aid flows to countries could result in real exchange appreciation, private industry crowding-out, and a shrinkage in tradeable industries.

In a study across 37 SSA countries, (Kumi et al., 2017) suggest that ODA stimulates sectoral growth, and that aid volatility negatively impacts non-tradeable sectors. However, in the presence of mature financial systems, this impact is weakened. (Dalgaard et al., 2004) argue that aid stimulates growth, however structural forms, policies, and the quantum of aid will determine the impact. In addition, should aid be targeted to climate objectives, consideration should be given to the Collier-Dollar allocation to improve effectiveness.

According to (Knack, 2001), higher levels of aid could lead to rent-seeking behaviour and corruption by the state, and weaken institutional quality, suggesting a negative implication on growth. Moreover, studies have investigated the impact of aid volatility on donor countries, and conclude that aid could lead to reduced investments in human capital (Celasun & Walliser, 2008), volatility in spending consumption and policy uncertainty (Rodrik, 1990), and lessens investment programmes and monetary policies (Mosley & Suleiman, 2007). In a study spanning 26 SSA countries, (Museru et al., 2014) show that aid has a positive relationship to growth, however aid effectiveness is weakened by public spend volatility.

### **2.5.2 Official Development Assistance and Poverty**

There is a lot of research on the topic of aid and poverty, with one group finding evidence of a positive connection and another arguing that aid does not affect poverty. Researchers have discovered that aid plays a role in poverty alleviation (Arndt et al., 2015; Hirano & Otsubo, 2014).

All forms of aid have a significant impact on poverty reduction in 50 developing nations, according to the findings of a study by (Dhahri & Omri, 2020). (Mosley, 1986; Mosley & Suleiman, 2007) believe that focusing aid on particular areas has a greater impact.

Using data from 118 countries, (Arvin & Barillas, 2010) found that there is no correlation between income per capita and foreign aid, but that this is dependent on democracy. Additionally, it has been discovered that effective donor coordination and a robust institutional environment boosts aid effectiveness and the effects of poverty reduction (Bigsten & Tengstam, 2015; Bourguignon & Platteau, 2017). According to a SSA 2004 study examining the relationship between foreign aid and poverty reduction, there is no influence of aid on poverty reduction, and it is attributed to corruption, governance, and political and economic instability in these countries (Ijaiya & Ijaiya, 2004). (McGillivray et al., 2006) examine the macro-economic impact of foreign aid dating back five decades, and argue that since the 1990s, studies have either proved contradictory or inconclusive. Nevertheless, many concur that countries' growth would be lower without aid's effectiveness.

#### **ODA and the environment**

A subset of the literature also looks at how foreign aid affects air pollution. According to some research, foreign aid results in the reduction of air pollution (Arvin & Lew, 2009; Mahalik et al., 2021; Sharma et al., 2019).

(J. E. Kim, 2018) examines whether foreign aid can serve as a mechanism for the shift of clean technology to developing nations, and concludes that FDI would be more beneficial to LMICs than knowledge transfer would be to LICs.

### **2.5.3 Foreign Direct Investment**

The impact of FDI on the three pillars of sustainability, i.e. social, economic, and environmental have been investigated in published literature, albeit separately. In the context of sustainable development, a new governance-related pillar was recently added. The objective of this empirical literature review is to examine studies that have examined this relationship at both the collective level, i.e., the sustainable development level, and at all development pillars.

#### **Impact of FDI on economic development**

From an economic perspective, many scholars agree that FDI has an impact on economic growth (Aitken & Harrison, 1999; Balasubramanyam et al., 1996; de Mello, 1997; Saggi, 2002). Although the results are mixed on the influence of FDI on economic growth, several studies point to a positive impact (Borensztein et al., 1998b; Malikane & Chitambara, 2017a), and others are not unanimous about the positive impact of FDI (Alfaro et al., 2004, 2010; Azman-Saini et al., 2010; Carkovic & Levine, 2005; Görg & Greenaway, 2004b). (Acquah & Ibrahim, 2020) suggest that these mixed results could be as a result of the characteristics of the recipient country shaping the effect of FDI.

Economic growth is positively correlated with FDI, according to one body of research. (Borensztein et al., 1998b) demonstrate that FDI enhances economic expansion when the host nation possesses a certain minimum capacity of human capital by using a sample of 69 developing countries over 20 years. In a study of eight Southern African countries, (Malikane & Chitambara, 2017b) found a direct positive relationship between FDI and economic growth. They conclude that higher levels of democracy will, in turn, increase the ability for countries to absorb positive spillovers. Based on an investigation of 140 countries between 1970 and 2009 (Iamsiraroj & Ulubaşoğlu, 2015b), showed the positive influence of FDI on growth. (Evans et al., 2017) found a positive relationship between FDI and economic growth in the presence of higher initial levels of GDP and human capital in the Ghanaian economy. Moreover, they determined that FDI enhances capital formation and capital stock quality.

However, a separate strand of literature reveals a negative relationship with host nations. Through the “crowding-out” of domestic investment, FDI can hurt host economies (Kardos, 2014; Reiter & Steensma, 2010). In a similar vein, investments will not result in increased efficiency if they are motivated by profit and biased incentives (Borensztein et al., 1998b).

Other scholars found that the effect of FDI is conditional on the characteristics of the host country, such as financial development (Adjasi et al., 2012; Agbloyor et al., 2014; Alfaro et al., 2004; Durham, 2004; Hermes & Lensink, 2003), human capital (Borensztein et al., 1998b; Li & Liu, 2005b), macro-economic stability (Alguacil et al., 2011), trade openness (Balasubramanyam et al., 1996), good infrastructure (Li & Liu, 2005b; J. Y. Wu & Hsu, 2012), and sound governance (Jude & Leveue, 2017). In investigating the causality between FDI and economic growth in 66 developing countries, (Duttaray et al., 2008), found that FDI affected growth in 29 of these countries, but not for the remainder of the sample. They discovered that export is a key channel for FDI; however, they caution on assuming that positive correlations do not imply actual growth.

Empirical neo-classical theory studies demonstrate that FDI will enhance economic development through a growth in the labour, technological advancement, and capital inflows (Iamsiraroj & Ulubaşoğlu, 2015a; Malikane & Chitambara, 2017b; Reiter & Steensma, 2010). In a study covering 69 developing countries, (Borensztein et al., 1998b) determined the positive links of FDI on the growth of the economy, however only in the presence of absorptive capacity within the recipient country. They confirmed the technology spillover effect, and that FDI has a larger contribution to growth than domestic investment. In a study spanning 49 developing countries from 1980 to 2005, (Reiter & Steensma, 2010) suggested that numerous elements determine the impact of FDI in the host economy. FDI has a stronger positive influence in the presence of high levels of human development and policies that protect local domestic markets through certain foreign investor restrictions. FDI and higher human development levels are also positively correlated to low levels of corruption. In a study covering 49 countries from 1980 to 2009, (Gui-Diby & Renard, 2015) found that FDI does not have a substantial impact on industrialisation, however market size, financial industry, and international trade were imperative, and concluded that these factors are key to driving a change in these flows. (Asiedu, 2006) demonstrates that sizable domestic local markets, decent infrastructure, sound investment policies, effective legal environments, and “resource-rich” advantages attract FDI, while political instability and corruption deter foreign investment. In a study spanning 31 African countries between 1984 and 2009, (Ibrahim et al., 2011) confirmed the market seeking nature of FDI. and the marginal effect of institutional and political indicators on FDI. In addition, financial depth is influential in attracting FDI, however only in the presence of quality

bureaucracy. They also found that FDI is concentrated in domiciles where there is pre-existing FDI.

### **Impact of FDI on the environment**

Other research scholars examine the effect of FDI on environmental pollution in response to the climate change agenda and the SDG goals, with varied results. Additionally, the topic of how FDI impacts the host nation's environment has been mentioned. In the first instance, the "Pollution Haven" hypothesis is supported by numerous studies. In a study of five ASEAN countries (Baek, 2016) found evidence of this hypothesis, where FDI worsens the environment and growth and energy consumption result in negative environmental impacts. In a similar vein, this hypothesis was found to be valid in Malaysia, Thailand, and the Philippines in a separate study of ASEAN nations (Merican et al., 2007).

(Bakhsh et al., 2017) demonstrated a positive relationship between FDI and pollution, and Malik et al. (2020) verified the presence of a "Pollution Haven" in Pakistan. In a study covering 20 countries, (Solarin & Al-Mulali, 2018) found that urbanisation and FDI has a pollution-reducing effect in developed nations, while increasing carbon emissions in developing nations. This reduction is due to strong environmental regulations, which deter dirty foreign industries.

In a study covering BRI countries, (Baloch et al., 2019), found that financial development, FDI, and urbanisation increase environmental damage. The presence of international businesses in local countries will lead to beneficial environmental spillovers for the host nation (Albornoz et al., 2009; X. Wu & Li, 2011) given the advanced technology of MNEs, and will be more likely to spread environmentally friendly, cleaner technology. (Kirkulak et al., 2011) confirms this with China.

In contrast, and aligned to the Pollution Haven hypothesis, (Pao & Tsai, 2010) and (Xie & Zhang, 2021) found evidence that FDI inflows reduce pollution in developing countries. This is also the case for studies in China, (Liu et al., 2017 and Xu et al., 2019). (Grossman & Krueger, 1995) found that the positive effect of growth occurs at the beginning of environmental degradation, and changes to a positive effective in the next environmental stage, confirming the Kuznets hypothesis.

Hu et al. (2021) noted a negative relationship between Chinese FDI and emissions in Africa. (Ridzuan et al., 2017) discovered that FDI has a positive relationship to economic growth, and engenders enhanced environmental quality. Also, trade openness and financial development are key drivers of sustainable development.

(Bokpin, 2017) suggested that for FDI to positively influence the sustainability of the environment, it is essential to have strong institutional quality and robust governance. In a MENA study, (Abdouli & Hammami, 2018) argue that progress in the economy is stimulated through pro-foreign and environmental policy environments.

### **Impact of FDI on poverty reduction**

The impact of FDI on reducing poverty is linked to the social pillar of sustainability. The vast body of research on the effect of FDI on reducing poverty yields conflicting results. Through growth channels, empirical research has examined how FDI affects poverty reduction indirectly (Alfaro et al., 2004; Borensztein et al., 1998b; Herzer, 2012; Li & Liu, 2005b).

Others have discovered that FDI helps reduce poverty. (Gohou & Soumaré, 2012) analysed the effect of FDI on the reduction of poverty in 52 countries in Africa over 17 years. Their findings confirm a strong positive relationship between poverty alleviation and FDI, but this impact differed significantly between regions.

(Fowowe & Shuaibu, 2014) examined the effect of foreign direct investment on poverty reduction across 30 African nations from 1981 to 2011, and concluded that the poverty-reducing effect of FDI and the effectiveness of FDI is improved by financial development. Additionally, the effect was stronger in nations with high poverty rates.

(Ucal, 2014) concluded that FDI has a poverty-reducing impact in 26 developing countries. In investigating FDI effects on poverty reduction in SSA from 1990 to 2010, (Fauzel et al., 2015), confirmed the positive relationship. (Olsegun Israel, 2014) found a similar effect in Nigeria. A study by (Nguea et al., 2020) concluded that FDI could be used to reduce poverty in the short term. (Dhahri & Omri, 2020) noted the positive impact of FDI on food security and poverty.

Other studies questioned the effectiveness of FDI in reducing poverty. For instance, (Ogunniyi & Igberi, 2014) found no effect in Nigeria, and (Lazreg & Zouari, 2018) confirmed this in

Tunisia. In an earlier study, (Akinmulegun, 2012) examined the FDI effect on Nigeria's welfare, and found that it is negligible (Akinlo & Dada, 2021). Researchers who investigated the FDI effects on the environmental degradation-poverty reduction nexus across SSA nations found no evidence of FDI reducing poverty when environmental degradation is present. These researchers and studies used a variety of proxies for poverty.

## **Chapter 3 Methodology**

### **3.1 Introduction**

This section describes the research methodology undertaken to conduct this study. The first part will explain the research approach and design utilised for this study. Part two will focus on the selection of the sample and data sources, and concludes with the analytical approach adopted for the quantitative study.

### **3.2 Research approach**

The choice of the research approach is guided by the research objectives and research questions posed by the study, the type of data to be gathered that is required, and the subsequent analysis of the data (Matthews & Ross 2010). According to (Collis & Hussey, 2009), where quantitative data collected is analysed using statistical techniques, the approach classifies as quantitative. Based on this reasoning, this study will follow a quantitative research approach. This approach is deemed appropriate as it seeks to deduce empirically the role that foreign flows in the form of official development finance and foreign direct investment have on the sustainable development agenda in SSA, and whether the impact differs across the 17 goals. The approach is deemed appropriate as it will allow the researcher to answer the research questions and meet the objectives. In addition, the research objective calls for a relationship to be quantified between selected variables, and as such a qualitative approach will not suffice (Creswell & Creswell, 2018).

### **3.3 Research design**

#### **3.3.1 Data and sources**

The main secondary sources for this study are the World Bank Development Indicators database and the Africa SDG Index and Trends Report for 2020. The World Bank Development Indicators database will be the source for the FDI and ODA variables, and the macro-economic variables for the period 2015 to 2019. The 2019 Africa SDG Index and Trends Report will be the source for the SDG measures employed in the analysis. This data will be complemented with data from the World Bank Governance Indicator database.

Table 3 depicts the countries included in the study sample, classified by income and resource status as per the World Bank definitions. Country inclusion in the sample is restricted to the Sub-Saharan region, which is also defined by the World Bank Indicator definitions. The first preliminary list includes 48 countries in Sub-Saharan Africa.

*Table 3: African Country classifications*

| SSA Countries *          | Income Classification ** | Resource Classification *** |
|--------------------------|--------------------------|-----------------------------|
| Angola                   | Lower Middle Income      | Resource Rich               |
| Benin                    | Lower Middle Income      | Resource Rich               |
| Botswana                 | Upper Middle Income      | Resource Rich               |
| Burkina Faso             | Low- Income              | Resource Rich               |
| Burundi                  | Low- Income              | Resource Rich               |
| Cabo Verde               | Lower Middle Income      | Non Resource Rich           |
| Cameroon                 | Lower Middle Income      | Resource Rich               |
| Central African Republic | Low- Income              | Non Resource Rich           |
| Chad                     | Low- Income              | Non Resource Rich           |
| Comoros                  | Lower Middle Income      | Non Resource Rich           |
| Congo, Dem. Rep.         | Low- Income              | Resource Rich               |
| Congo, Rep               | Lower Middle Income      | Resource Rich               |
| Côte d'Ivoire            | Lower Middle Income      | Resource Rich               |
| Equatorial Guinea        | Upper Middle Income      | Non Resource Rich           |
| Eritrea                  | Low- Income              | Non Resource Rich           |
| Eswatini                 | Lower Middle Income      | Non Resource Rich           |
| Ethiopia                 | Low- Income              | Non Resource Rich           |
| Gabon                    | Upper Middle Income      | Non Resource Rich           |
| Gambia, The              | Low- Income              | Non Resource Rich           |
| Ghana                    | Lower Middle Income      | Resource Rich               |
| Guinea                   | Low- Income              | Resource Rich               |
| Guinea-Bissau            | Low- Income              | Non Resource Rich           |
| Kenya                    | Lower Middle Income      | Non Resource Rich           |
| Lesotho                  | Lower Middle Income      | Non Resource Rich           |
| Liberia                  | Low- Income              | Resource Rich               |
| Madagascar               | Low- Income              | Non Resource Rich           |
| Malawi                   | Low- Income              | Non Resource Rich           |
| Mali                     | Low- Income              | Resource Rich               |
| Mauritania               | Lower Middle Income      | Non Resource Rich           |
| Mauritius                | High Income              | Non Resource Rich           |
| Mozambique               | Low- Income              | Resource Rich               |
| Namibia                  | Upper Middle Income      | Resource Rich               |
| Niger                    | Low- Income              | Resource Rich               |
| Nigeria                  | Lower Middle Income      | Resource Rich               |
| Rwanda                   | Low- Income              | Non Resource Rich           |
| São Tomé and Príncipe    | Lower Middle Income      | Non Resource Rich           |
| Senegal                  | Lower Middle Income      | Resource Rich               |
| Seychelles               | High Income              | Non Resource Rich           |
| Sierra Leone             | Low- Income              | Resource Rich               |
| Somalia                  | Low- Income              | Non Resource Rich           |
| South Africa             | Upper Middle Income      | Resource Rich               |
| South Sudan              | Low- Income              | Non Resource Rich           |
| Sudan                    | Low- Income              | Resource Rich               |
| Tanzania                 | Lower Middle Income      | Resource Rich               |
| Togo                     | Low- Income              | Resource Rich               |
| Uganda                   | Low- Income              | Non Resource Rich           |
| Zambia                   | Lower Middle Income      | Resource Rich               |
| Zimbabwe                 | Lower Middle Income      | Resource Rich               |

\* African countries classification as per the World Bank Development Indicators

\*\* African countries income classification as per the World Bank Indicators. TAfrican economies are classified into four main groups: low, lower-middle, upper-middle, and high income. Gross National Income (GNI) per capita data in U.S. dollars is used for this purpose and converted from local currency.

\*\*\* African resource classification is as per UNCTAD representing countries with median exports in gold, fuels, precious stones and mining products, which represent 25% or more of total merchandise exports

Country income classification is necessary as the composition of their foreign inflows will differ, where some countries will have a larger share of FDI compared to ODA, and vice versa. The specific “resource” classification is to understand the characteristics of FDI and ODA flows between resource and non-resource-based countries, including the interactions of these flows on all 17 SDG goals.

### 3.3.2 Regression model

The regression model for the achievement of the SDGs includes the independent variables as follows: Foreign Direct Investment (FDI); Official Development Assistance (ODA); GDP growth rate (GDP); Population (POP); Government Consumption Expenditure (GOVCO); Health Expenditure (HE); Military Expenditure (ME); Financial Development (FD); Trade Openness (TO); Freedom Index (FE); Government Effectiveness (GEFF); Regulatory Quality (REG); Rule of Law (ROL); and Control of Corruption (COC). The first regression model is estimated as:

#### Equation 1:

$$SDG_{i,t} = \beta_0 + \beta_1 FDI_{it} + \beta_2 ODA_{it} + \beta_3 GDP_{it} + \beta_4 POP_{it} + \beta_5 GOVCONS_{it} + \beta_6 HE_{it} + \beta_7 FD_{it} + \beta_8 TO_{it} + \beta_9 FI_{it} + \varepsilon_{it}$$

The dimensions of SDG replaces SDG in Equation 1 to forms equations 2, 3, 4 and 5 for Social score, Economic score, Environmental score and Governance score respectively.

### 3.3.3 Definition and measurement of variables

The section below will describe and motivate the variables selected for the purposes of this study, including how we hypothesise the independent variables will behave in relation to the dependent variable.

#### 3.3.3.1 Dependent variable

The SDG score, which is sourced from The Africa SDG Report (2020), will be used as the score for the sample. The Index ranks 52 African countries across 17 goals and 97 indicators. The

score depicts a country's position on a scale between the worst (0) and best (100) outcomes. For example, a score of 53.29 means the country is 53% of the way to achieving the SDGs. Due to the data methodology applied by SDG Africa, reported results are not comparable to the global SDG Index findings. In addition, only 52 of the 54 countries are included in the index. Data is not available for SDG 10 (reduced inequalities) and SDG 12 (responsible consumption and production) (SDGs Centre for Africa & SDSN, 2019).

### **3.3.3.2 Independent variables**

#### **a) Foreign Direct Investment**

Foreign Direct Investment is the log form of FDI inflow (Sarkodie & Strezov, 2019). A large proportion of literature to date finds FDI relevant to sustainable development and economic growth. The expectation is to see a positive influence on sustainable development (Iamsiraroj & Ulubaşoğlu, 2015a; Malikane & Chitambara, 2017a; Reiter & Steensma, 2010; Sunde, 2017).

#### **b) Official Development Assistance**

Similar to FDI, ODA is the log form of ODA inflow. Several studies have found a positive relationship between ODA and economic growth (Arndt et al., 2015; Burnside & Dollar, 2000; Chenery & Strout, 1966; Kumi et al., 2017; Levy, 1988) with sectoral studies also finding a positive relationship between targeted aid and economic growth (Dreher et al., 2008; Gyimah-Brempong, 2015; Mishra & Newhouse, 2009; Pickbourn & Ndikumana, 2016; T. U. Yogo, 2017). Studies have also found evidence of a reduction in poverty, structural change, and improved social indicators. As such, we expect a positive relationship between ODA and sustainable development.

### **3.3.3.3 Control variables**

#### **a) Income**

Income is reflected as real rate of GDP averaged for each of the countries. GDP is the average of real GDP growth. As economic development is positively related to sustainable development (Mainali et al., 2018), the expectation expects a positive relationship.

#### **b) Population**

Population size is used for each SSA country, and is represented in its logarithmic form. Higher population growth has a negative impact on income, and as such we expect to see a negative relationship between income and sustainable development (Aisen & Veiga, 2013; Aust et al., 2020).

**c) Government consumption**

Government consumption represents the final consumption expenditure of the general government as the percentage of income. To achieve the SDGs in SSA, increased financing will be required from public sources, as evidenced by the various estimations and needs assessments produced in recent literature. As a result of this, we expect a positive relationship between government consumption and sustainable development.

**d) Health Expenditure**

Health Expenditure is reflected as the domestic health expenditure of the general government as the percentage of total government expenditure. Similar to government consumption, we expect a positive relationship with sustainable development.

**e) Free Index**

Free Index is the freedom rating produced by Freedom House to assess political rights and civil liberties (Malikane & Chitambara, 2017a). A higher score indicates greater freedom and civil rights, and as such the expectation is a positive relationship between the Free Index and sustainable development.

**f) Financial development**

Financial development is considered to promote economic growth through the mobilisation of resources and financial resource distribution. The positive effects of aid and foreign direct investment on economic growth has been shown to be conditional on the characteristics of the host and recipient country (Alfaro et al., 2004, 2010). We expect a positive relationship between financial development and sustainable development.

**g) Trade openness**

Previous literature has linked trade openness to the economic growth of economies, particularly in low-income economies as compared to high income ones. Given the positive link between growth and trade openness, we expect a positive relationship between trade openness and

sustainable development (Brueckner & Lederman, 2015; Dufrenot et al., 2010; Ridzuan et al., 2017).

*Table 4: Variable Definitions and Descriptions*

| Indicator                    | Variable                                 | Description                                                                             | Source                  |
|------------------------------|------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------|
| <b>Dependant Variables</b>   |                                          |                                                                                         |                         |
| SDG                          | SDG Score                                | Ranks African countries across 17 goals and 97 indicators                               | SDG Africa Index Report |
| SOC_SDG                      | Social SDG score                         | The average of SDGs 1 to 7                                                              | SDG Africa Index Report |
| ECO_SDG                      | Economic SDG score                       | The average of SDGs 8 to 12                                                             | SDG Africa Index Report |
| ENVIROSDG                    | Environmental SDG score                  | The average of SDGs 13 to 15                                                            | SDG Africa Index Report |
| GOV_SDG                      | Governance SDG score                     | The average of SDGs 16 and 17                                                           | SDG Africa Index Report |
| <b>Independent Variables</b> |                                          |                                                                                         |                         |
| FDI                          | Foreign Direct Investment Inflows        | FDI inflows                                                                             | WDI                     |
| ODA                          | Official Development Assistance          | ODA inflows                                                                             | WDI                     |
| <b>Control Variables</b>     |                                          |                                                                                         |                         |
| GDP                          | Gross Domestic Product                   | Average of real domestic growth                                                         | WDI                     |
| POP                          | Population                               | Population of each SSA country                                                          | WDI                     |
| GOVCO                        | Total government consumption expenditure | Ratio of total government consumption expenditure to GDP (average)                      | WDI                     |
| HE                           | Health Expenditure                       | Ratio of total health expenditure to total government consumption expenditure (average) | WDI                     |
| FD                           | Financial Development                    | Ratio of domestic credit to the private sector to GDP (average)                         | WDI                     |
| TO                           | Trade Openness                           | Ratio of exports and imports to total GDP (average)                                     | WDI                     |
| FE                           | Free Index                               | Freedom rating on civil and political rights                                            | Freedom House           |

*Source: Author's compilation*

### **3.3.4 Estimation approach**

A panel data analysis will be employed for this study to examine achievement of the SDG goals. Data can be downloaded in panel form from the World Bank data indicators database, this study will use this dataset.

The main objective in using a panel data approach is to understand the sample data over time. One motivation for this is that the objective of this study is to understand the relationship between the SDG score in general and the individual SDG goals with the selected variables. The trend estimation approach will be explained in further detail below. The second countries, and the data methodology used by SDG Africa to compile the SDG Index, including the fact that the Africa SDG Index report was first produced in 2018. Also, the African SDG report for 2020 is not comparable to the 2019 Global Index report or the 2019 African SDG report, due to changes and updates in methodologies and data sources.

Either of the fixed effects model or the random effects model may be the most appropriate estimation strategy, given the nature of the panel data used in this study. With a fixed effects model, the assumption is that there are other factors that can impact the dependent variable (SDG scores). While both the fixed effects and the random effects model take into account heteroskedasticity, country differences are assumed to be random and unrelated to the dependent variable by the random effects model (Dewan & Hussein, 2001).

The Hausman Test determines the most appropriate estimation method between the fixed effects or the random effects model. The differences between the two estimates of the coefficients are compared with the Hausman Test. Before any statistical regression analysis is performed, a Hausman Test will be carried out. Checks will be performed on all the explanatory variables, which will include correlation and variance inflation (VIFs) computations to determine the existence of multicollinearity. The final model will be presented after controlling for any multicollinearity issues identified during the checks.

## **Conclusion**

This section provided an outline of the research methodology employed to conduct this study, and in line with the objectives of this research. Key considerations included the research approach, data and sampling techniques, and concluded with the analytical approach to be followed.

## **Chapter 4 Discussion of Findings**

### **4.1 Introduction**

This chapter will investigate the findings regarding the impact of FDI and ODA on SSA's achievement of the SDG goals. A descriptive analysis provides an overview of data used in the estimation model. The statistical analysis's empirical results are discussed in the conclusion, which follows.

### **4.2 Descriptive statistics**

The descriptive statistics are reflected in Table 5 for FDI, ODA, SDG scores, and the related control variables, i.e. the average real rate of GDP growth; Government Expenditure (GOVCONS); Health Expenditure (HE); Population (POP); Financial Development (FD); Trade Openness (TO); and the Free Index (FI), as represented in equation 1.

General SDG scores range between 36.70 and 65.95, indicating that all countries in the sample have yet to reach all 17 goals. The sample mean of SDG of 52.84 is just under the Africa average of 53.82 according to the SDG 2020 report (SDGs Center for Africa, 2020). This means that four years into the SDG goals, SSA countries are only midway to achieving their SDGs. FDI and ODA have a mean value of US\$645m and US\$942m respectively. The average real rate of GDP growth is 3.5%. SOCSDG pillar ranges between 24.42 and 72.41, and represents the lowest average of all SDG pillars. ENVIROSDG has a maximum average score of 94.13 for SSA, with GOVSDG ranging between 29.70 and 79.90.

**Table 5: Descriptive Statistics**

| <b>Variables</b>             | <b>Mean</b>  | <b>Median</b> | <b>Maximum</b> | <b>Minimum</b> | <b>Std. Dev.</b> | <b>Obs.</b> |
|------------------------------|--------------|---------------|----------------|----------------|------------------|-------------|
| <b>FDI (millions in USD)</b> | <b>645</b>   | <b>465</b>    | <b>5,570</b>   | <b>(7,400)</b> | <b>1,720</b>     | <b>128</b>  |
| <b>ODA (millions in USD)</b> | <b>942</b>   | <b>819</b>    | <b>3,520</b>   | <b>22</b>      | <b>752</b>       | <b>128</b>  |
| GDP                          | 3.50         | 3.97          | 10.82          | -6.14          | 3.07             | 128         |
| GOVCON                       | 15.44        | 14.70         | 39.69          | 3.60           | 7.46             | 128         |
| HE                           | 5.33         | 4.71          | 10.09          | 2.53           | 2.04             | 128         |
| POP                          | 25.24        | 16.33         | 201.00         | 1.26           | 34.31            | 128         |
| FD                           | 24.66        | 17.05         | 118.64         | 5.14           | 23.30            | 128         |
| FI                           | 48.34        | 50.00         | 90.00          | 0.00           | 22.84            | 128         |
| TO                           | 61.98        | 59.10         | 135.40         | 16.14          | 24.09            | 128         |
| <b>SDG</b>                   | <b>52.84</b> | <b>52.91</b>  | <b>65.95</b>   | <b>36.70</b>   | <b>5.95</b>      | <b>128</b>  |
| <b>SOCSDG</b>                | <b>47.49</b> | <b>48.53</b>  | <b>72.41</b>   | <b>24.42</b>   | <b>11.29</b>     | <b>128</b>  |
| <b>ECOSDG</b>                | <b>49.03</b> | <b>48.13</b>  | <b>66.17</b>   | <b>31.42</b>   | <b>6.27</b>      | <b>128</b>  |
| <b>ENVIROSDG</b>             | <b>68.00</b> | <b>68.32</b>  | <b>94.13</b>   | <b>40.70</b>   | <b>10.22</b>     | <b>128</b>  |
| <b>GOVSDG</b>                | <b>56.32</b> | <b>56.49</b>  | <b>79.09</b>   | <b>29.70</b>   | <b>11.96</b>     | <b>128</b>  |

Note: FDI = Foreign Direct Investment; ODA = Official Development Assistance; GDP = real rate of gross domestic product; GOVCO = Government Expenditure; HE = Health Expenditure; POP = natural log of population; FD = financial development; FI = Free Index; TO = Trade Openness. SOCSDG = average of SDG 1-7; ECOSDG = average of SDG 8-12; ENVIROSDG = average SDG 13-15; GOVSDG = average SDG 16-17, Region 1 = East Africa; Region 2 = Southern Africa; Region 3 = West Africa. RR = Resource-Rich countries. \*\*\*, \*\*, \* denote significance at the 1%, 5%, and 10% respectively.

Source: Author's compilation from results

### 4.3 Correlation matrix

The correlation matrix is presented in Table 6 to assess whether correlation exists with the explanatory variables. In line with (Kennedy. 2008), the results were compared to the multicollinearity threshold of 0.7. A strong correlation (0.86) exists between ODA and population. The general SDG scores are positively correlated with the FDI and Free Index. HE, POP, FI, and TO have correlation coefficients above 0.50.

**Table 6: Correlation matrix**

| Probability | SDG                    | FDI                    | ODA                    | GDP                    | GOVCO                  | HE                     | ME                     | POP                    | FD                    | FI                    | TO    |
|-------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|-----------------------|-------|
| SDG         | 1.000                  |                        |                        |                        |                        |                        |                        |                        |                       |                       |       |
| FDI         | 0.000<br><i>0.997</i>  | 1.000                  |                        |                        |                        |                        |                        |                        |                       |                       |       |
| ODA         | -0.310<br><i>0.002</i> | 0.350<br><i>0.000</i>  | 1.000                  |                        |                        |                        |                        |                        |                       |                       |       |
| GDP         | 0.090<br><i>0.372</i>  | 0.280<br><i>0.005</i>  | 0.310<br><i>0.002</i>  | 1.000                  |                        |                        |                        |                        |                       |                       |       |
| GOVCO       | 0.160<br><i>0.113</i>  | -0.110<br><i>0.288</i> | -0.400<br><i>0.000</i> | -0.280<br><i>0.006</i> | 1.000                  |                        |                        |                        |                       |                       |       |
| HE          | 0.050<br><i>0.608</i>  | -0.060<br><i>0.573</i> | -0.200<br><i>0.049</i> | -0.310<br><i>0.002</i> | 0.650<br><i>0.000</i>  | 1.000                  |                        |                        |                       |                       |       |
| ME          | -0.390<br><i>0.000</i> | -0.160<br><i>0.122</i> | 0.010<br><i>0.886</i>  | -0.170<br><i>0.102</i> | -0.010<br><i>0.950</i> | -0.140<br><i>0.166</i> | 1.000                  |                        |                       |                       |       |
| POP         | -0.210<br><i>0.037</i> | 0.140<br><i>0.163</i>  | 0.860<br><i>0.000</i>  | 0.130<br><i>0.209</i>  | -0.450<br><i>0.000</i> | -0.310<br><i>0.002</i> | -0.030<br><i>0.748</i> | 1.000                  |                       |                       |       |
| FD          | 0.510<br><i>0.000</i>  | -0.080<br><i>0.413</i> | -0.300<br><i>0.003</i> | -0.180<br><i>0.084</i> | 0.280<br><i>0.005</i>  | 0.410<br><i>0.000</i>  | -0.300<br><i>0.003</i> | -0.160<br><i>0.122</i> | 1.000                 |                       |       |
| FI          | 0.490<br><i>0.000</i>  | 0.090<br><i>0.387</i>  | -0.230<br><i>0.025</i> | 0.160<br><i>0.115</i>  | 0.150<br><i>0.152</i>  | 0.140<br><i>0.168</i>  | -0.640<br><i>0.000</i> | -0.150<br><i>0.156</i> | 0.510<br><i>0.000</i> | 1.000                 |       |
| TO          | 0.200<br><i>0.048</i>  | -0.040<br><i>0.726</i> | -0.550<br><i>0.000</i> | -0.040<br><i>0.681</i> | 0.510<br><i>0.000</i>  | 0.330<br><i>0.001</i>  | -0.270<br><i>0.007</i> | -0.610<br><i>0.000</i> | 0.220<br><i>0.033</i> | 0.400<br><i>0.000</i> | 1.000 |

Note: FDI = Foreign Direct Investment; ODA = Official Development Assistance; GDP = real rate of gross domestic product; GOVCO = Government Expenditure; HE = Health Expenditure; POP = natural log of population; FD = financial development; FI = Free Index; TO = Trade Openness. SDG = SDG Score, Region 1 = East Africa; Region 2 = Southern Africa; Region 3 = West Africa. RR = Resource-Rich countries. Italized values indicate p-values p<0.001, p<0.05 and p<0.1 denote significance at 1%, 5%, and 10% respectively.

Source: Author's compilation from results

As reflected in Table 7, the Variance Inflation Factors (VIFs) are computed to address the issues posed by multicollinearity. The beginning point of the regression model (Model 1) is comprised of all independent variables. The findings indicate that multicollinearity is influenced by income dummy variables with coefficients greater than 10. Excluding the income dummy variables, Model 2 results in the VIFs dropping to below 10. Given this result, there are no multicollinearity concerns. For the purposes of this study, Model 2 will be used.

**Table 7: Variance Inflation Factors (VIF)**

| Variable | VIF     |         |
|----------|---------|---------|
|          | Model 1 | Model 2 |
| FDI      | 2.164   | 1.634   |
| ODA      | 9.049   | 6.500   |
| GDP      | 1.849   | 1.790   |
| GOVCONS  | 3.259   | 2.579   |
| HE       | 2.429   | 1.892   |
| POP      | 6.997   | 6.449   |
| FD       | 4.780   | 2.092   |
| FI       | 3.178   | 2.665   |
| TO       | 4.194   | 4.024   |
| INCOME1  | 52.504  | n/a     |
| INCOME2  | 44.776  | n/a     |
| INCOME3  | 10.482  | n/a     |
| REGION1  | 3.151   | 2.810   |
| REGION2  | 7.363   | 5.796   |
| REGION3  | 5.453   | 4.632   |
| RR       | 2.978   | 2.680   |

Note: FDI = Foreign Direct Investment; ODA = Official Development Assistance; GDP = real rate of gross domestic product; GOVCO = Government Expenditure; HE = Health Expenditure; POP = natural log of population; FD = financial development; FI = Free Index; TO = Trade Openness. Region 1 = East Africa; Region 2 = Southern Africa; Region 3 = West Africa. RR = Resource-Rich countries. \*\*\*, \*\*, \* denote significance at the 1%, 5%, and 10% respectively.

*Source: Author's compilation from results*

#### **4.4 Regression results: SDG, ODA & FDI**

The results of the regression analysis on the effect of FDI and ODA on SDG and its dimensions are presented in Table 8. The Hausman test is calculated on all five models to determine the choice between the fixed effects and the random effects model for estimation purposes shows that p-value for the SDG model is 0.00 (refer to Table 8), which is significant (below the 5% significance level), which indicates the superiority of the fixed effects model over the random effects model. This applies to all the models except for the social pillar model. A p-value of less than 0.05 confirms the rejection of the random effects model's null hypothesis, as shown in Table 8. The fixed effects model is used for the overall general score, the economic pillar, the environmental pillar and the governance pillar. The p-value for the social pillar is 0.1698 and hence the random effects model is utilised.

From Table 8, FDI reflects a positive and significant influence on the overall SDG score. This advocates that FDI is a significant factor in achieving sustainable development throughout SSA. FDI is positive and significant at both the 5% and 10% level, with a coefficient of 87.853. This is in keeping with studies by (Aust et al., 2019; Fang, 2021). In contrast, the achievement of the SDGs is negatively correlated with ODA, with a coefficient of -2.675, although not significant. This could be as the result of instances where aid is ineffective due to poor institutional environments resulting in aid dependency (Doucouliagos & Paldam, 2009; Hansen & Tarp, 2000), and corruption where aid is misappropriated and not used for the purposes of sustainable development. In addition, this negative relationship to the SDGs impedes poverty reduction due to governance issues and political and economic instability in these countries.

The impact of FDI and ODA on the four SDG goals' pillars – social pillar (SDG 1-7); economic pillar (SDG 8-12); environmental pillar (SDG 13-15); and governance pillar (SDG 16-17) – shown in Table 8. The social and economic pillars of the goals are significantly influenced by FDI. This indicates that foreign investment assists these countries in achieving goals linked to reducing poverty, improving access to education, energy, and healthcare. However, this FDI impact is negative for the environmental pillar. This is confirmation of studies that support the Pollution Haven hypothesis (Baek, 2016; Bakhsh et al., 2017; Baloch et al., 2019). SSA countries have seen significant resource FDI flows, which is largely a polluting industry, and this tends to have a negative impact on natural resources and the environment.

*Table 8: Fixed and Random Effect Regression Results for general SDG score and its Dimensions*

|                            | 1                         | 2                          | 3                         | 4                        | 5                        |
|----------------------------|---------------------------|----------------------------|---------------------------|--------------------------|--------------------------|
| Variables                  | <i>sdg</i>                | <i>Social</i>              | <i>Economic</i>           | <i>Environmental</i>     | <i>Governance</i>        |
| Constant                   | 87.853<br><i>9.462</i>    | 77.858<br><i>26.254</i>    | 77.112<br><i>11.847</i>   | 16.414<br><i>24.238</i>  | 59.956<br><i>17.632</i>  |
| FDI                        | 0.243**<br><i>0.103</i>   | 0.126*<br><i>0.065</i>     | 0.249**<br><i>0.129</i>   | -0.162<br><i>0.264</i>   | 0.244<br><i>0.192</i>    |
| ODA                        | -2.675<br><i>1.867</i>    | -4.993***<br><i>1.6180</i> | -2.661<br><i>2.337</i>    | 8.102**<br><i>4.782</i>  | 0.393<br><i>3.478</i>    |
| GDP                        | 0.17<br><i>0.152</i>      | 0.188*<br><i>0.098</i>     | 0.241<br><i>0.19</i>      | -0.306<br><i>0.39</i>    | 0.43<br><i>0.283</i>     |
| GOVCO                      | -0.115<br><i>0.075</i>    | 0.0033<br><i>0.0994</i>    | -0.135<br><i>0.094</i>    | -0.103<br><i>0.193</i>   | 0.534***<br><i>0.141</i> |
| HE                         | -0.783***<br><i>0.204</i> | -0.500**<br><i>0.198</i>   | -0.606**<br><i>0.255</i>  | -0.046<br><i>0.523</i>   | -0.1<br><i>0.38</i>      |
| POP                        | -2.672<br><i>1.79</i>     | 0.808<br><i>3.849</i>      | -1.824<br><i>2.241</i>    | -2.797<br><i>4.585</i>   | -3.877<br><i>3.335</i>   |
| FD                         | 0.078***<br><i>0.021</i>  | 0.146***<br><i>0.0499</i>  | 0.031<br><i>0.026</i>     | -0.009<br><i>0.053</i>   | 0.055<br><i>0.039</i>    |
| FI                         | 0.0756***<br><i>0.025</i> | 0.0508<br><i>0.0480</i>    | 0.052**<br><i>0.031</i>   | -0.081<br><i>0.064</i>   | 0.213***<br><i>0.046</i> |
| TO                         | 0.008<br><i>0.028</i>     | -0.0133<br><i>0.0315</i>   | 0.01<br><i>0</i>          | 0.136*<br><i>0.072</i>   | -0.07<br><i>0.053</i>    |
| REGION1                    | 8.430***<br><i>1.486</i>  | 8.015<br><i>5.338</i>      | 10.685***<br><i>1.861</i> | -3.669<br><i>3.807</i>   | 5.542**<br><i>2.769</i>  |
| REGION2                    | 5.218***<br><i>1.854</i>  | 9.022<br><i>5.825</i>      | 5.381**<br><i>2.321</i>   | -9.630**<br><i>4.749</i> | 4.905<br><i>3.455</i>    |
| REGION3                    | 1.814<br><i>1.54</i>      | 0.555<br><i>5.480</i>      | 7.209***<br><i>1.929</i>  | -4.946<br><i>3.946</i>   | 5.758**<br><i>2.871</i>  |
| RR                         | 2.156*<br><i>1.223</i>    | -0.792<br><i>4.270</i>     | 1.246<br><i>1.531</i>     | 8.322**<br><i>3.133</i>  | -1.843<br><i>2.279</i>   |
| R squared                  | 0.62                      | 0.671                      | 0.455                     | 0.211                    | 0.591                    |
| Adjusted R squared         | 0.576                     | 0.633                      | 0.392                     | 0.12                     | 0.543                    |
| Probability (F-statistic)  | 0.0000                    | 0.000                      | 0.000                     | 0.009                    | 0.000                    |
| Durban Watson Test         | 0.357                     | 0.22                       | 0.725                     | 0.985                    | 0.924                    |
| Hausman $\chi^2$ (p-value) | 51.256 (0.000)            | 12.843 (0.1698)            | 22.798 (0.001)            | 209.778 (0.000)          | 33.696 (0.000)           |
| Countries                  | 32                        | 32                         | 32                        | 32                       | 32                       |
| Observations               | 127                       | 127                        | 127                       | 127                      | 127                      |

Note: FDI = Foreign Direct Investment; ODA = Official Development Assistance; GDP = real rate of gross domestic product; GOVCO = Government Expenditure; HE = Health Expenditure; POP = natural log of health; FD = financial development; FI = Free Index; TO = Trade Openness. SOCSDG = average of SDG 1-7; ECOSDG = average of SDG 8-12; ENVIROSDG = average SDG 13 -15; GOVSDG = average SDG 16-17, Region 1 = East Africa; Region 2 = Southern Africa; Region 3 = West Africa. RR = Resource-Rich countries. Italized values denote standard errors. \*\*\*, \*\*, \* denote significance at the 1%, 5% and 10% respectively. *Source: Author's compilation from results*

In respect of the control variables relating to government expenditure, HE has a significant and adverse effect on the general SDG score at the 1%, 5%, and 10% level. Higher levels of health expenditure results in lower SDG scores for SSA countries. This suggests that government health expenditure is not having the intended effect and indicates the inefficiency of public expenditure. Financial development (FD) has a significant positive relationship with the overall SDG score, suggesting that SSA countries with increased levels of FD demonstrate higher SDG scores, highlighting the critical role FD plays in attracting SDG-related financing. We confirm that the characteristics of the host and recipient nations will be necessary for FDI to have the desired effect on sustainability. The correlation coefficient is significant at the 1%, 5%, and 10% level. People's access to political rights and civil liberties, as measured by the Free Index, has a significant positive impact on the SDGs. This suggests that countries with stable political institutions are more inclined to meet their sustainable development agenda, confirming the importance of quality political systems. GDP, GOVCO, POP, and TO are not significant at the general score level.

At the regional level, EA (Region 1) and SA (Region 2) are making progress in achieving their SDGs as compared to West Africa. Similarly, SSA resource-rich countries are making progress on the achievement of the SDG goals, which reflects historical trends of resource seeking FDI in African countries.

The influence of ODA has a significant negative influence on social SDG goals. The findings are consistent with previous literature such as (Boone, 1996; Rajan & Subramanian, 2005), who objected the influence of aid, where aid tends to increase government size, create inefficiencies, and stymie the advancement of people, particularly for SSA emerging nations. This is in contrast to prior studies by (Heinrich et al., 2016; Galiani et al., 2017), who believe that the positive aid impacts on sustainable development because it generates income, enables education and healthcare access, creates jobs, and raises living standards. In contrast, ODA demonstrates a significant positive influence on the SDGs' environmental pillar. Given that ODA financing forms part of a key source of funding in the upgrading of SSA energy, this implies that ODA assists in progressing environmental goals.

The control variables relating to government expenditure, HE are seen to have a significant negative relationship with social SDGs. This shows that SSA is failing to use public health

spending to raise the living standards of its citizens.. Higher levels of FD are positively associated with the social pillar of the SDGs. The Free Index shows a significant positive effect on the goals associated with economic and governance pillars. This further highlights the importance of quality institutions and governance across all aspects of sustainability. Although not significant, the FI negatively impacts environmental progress. The control variable, population density do not influence any of the pillars of sustainability, while GDP growth is positively influences goals related to the social pillar.

At a regional level, East Africa has shown positive progress on economic, and governance pillars. Southern Africa reflects positive progress on only the economic pillar, and West Africa shows progress on economic and governance goals. Resource-rich countries reflect progress on the goals associated with the environmental pillar.

Countries in SSA face difficulties in obtaining the funding they need to achieve their goal of sustainable development. Based on the findings above, private foreign investment can fill this funding gap. Consideration will also need to be given to the impact ODA has on the progress of the SDG goals, given the negative influence on the achievement of these goals. Policymakers will need to be more deliberate in allocating ODA to sustainable development. These findings also reinforce the catalytic role ODA plays in mobilising private capital for sustainable development. This will allow SSA governments to attract larger flows of private capital to augment domestic mobilisation efforts. Research has highlighted the importance and role of FDI and ODA in assisting SSA countries to reach their economic, environmental, and social goals by 2030. This article adds to the body of research that looks at external sources of funding, such as FDI, and as a means of bridging the funding gap for SDGs.

These results reflect the positive impact that FDI can make in achieving the SDG goals, and how policymakers can craft strategies and policies that allow them to attract FDI for their relevant sustainable agendas. For SSA countries to meet their sustainable goals by 2030, it is imperative for them to open their economies to foreign investment; however, care will need to be taken to ensure there is an appropriate balance between all the pillars underpinning sustainable development. Each SSA country will have to develop and implement SDG funding strategies that are nuanced to their respective countries, and to determine the appropriate mix of external financing sources.

## **Chapter 5 Conclusions and Recommendations**

### **5.1 Introduction**

This chapter presents the conclusions, as well as suggestions regarding the influence of FDI and ODA based on the findings in the preceding chapter, the policy recommendations that would improve the impact of external financing on the SDG goals, and further research for investigation. This study is in response to the need for literature on financing sustainable development, particularly those in emerging and least-developed markets in SSA where funding gaps are persistent and ever-growing.

External financing plays an important role in the funding strategies of SSA countries in meeting their sustainability ambitions. As a result, this paper analyses whether external financing in the form of ODA and FDI impacts the progress of the SDG goals in 32 SSA economies.

These findings show that both FDI and ODA have a mixed impact on the realisation of the SDG goals. The findings demonstrate that SSA countries can benefit greatly from FDI in achieving the 2030 Agenda, in particular East Africa and Southern Africa. However, ODA has a negative influence on the progress of the SDG goals, except for goals associated with the environmental pillar.

Public expenditure, such as health expenditure, has a significant negative influence on countries achieving higher SDG scores. The level and openness of financial development lends itself to countries receiving the level of support required in achieving their SDGs. Higher levels of political rights and freedom play a role in achieving some of the SDG goals. East Africa and Southern Africa show progress on many of the SDG goals. Resource-rich countries are making good progress on the environmental pillar of the goals.

### **5.2 Summary of findings and policy recommendations**

External financing in the form of ODA and FDI was the subject of this study in order to achieve the SDG goals by 2030, utilising annual data on 32 countries in SSA from 2015 to 2020. Understanding the impact of ODA and FDI on progress toward the SDG goals at the general

score and individual 17 goal scores was accomplished using the fixed effects regression method.

External financing can contribute significantly to the funding strategies of SSA countries in their pursuit of meeting their sustainable development ambitions, in particular FDI. The findings demonstrate that foreign investment can indeed play a role in assisting SSA countries in achieving the 2030 Agenda, most notably in the East and Southern Africa regions and with resource-rich countries. The benefits of FDI include poverty alleviation, job creation, creation of new markets allowing for the diversification of the economy, and technology transfer.

Public expenditure, such as health expenditure, also exerts a significant negative influence on countries achieving higher SDG scores. A wide variety of research has revealed that governments will require higher levels of expenditure to deliver on the SDG agenda and our findings dispute that higher levels of spending contribute to the progress of the SDGs. The level and openness of financial development also lends itself to countries receiving support in achieving their SDGs. Higher rates of access to political rights and freedom plays a role in achieving some of the SDG goals. East Africa and Southern Africa show good progress on many of the SDG goals. Resource-rich countries seem to make good progress on the environmental goals.

FDI should be scaled and prioritised as an important funding source to meet the sustainable agenda, given the positive effect that FDI plays in the achievement of sustainability. In addition, policymakers should be deliberate in creating incentives to attract FDI across all pillars of the SDGs. SSA countries should create an inducive environment for FDI through increasing levels of financial development and improving their people's political and civil liberties. Private investment should be targeted to the SDG goals related to the environmental pillar. SSA will have higher energy needs to grow their economies and lift the conditions of their people; however, consideration should be given to environmental policies to ensure a sustainable trade-off. Policymakers, together with developed finance institutions, can enrich policy frameworks and capital markets to further build the infrastructure necessary for finance mobilisation.

Consideration will also need to be given to the impact ODA has on the progress of the SDG goals, given the negative influence on the achievement of these goals. This would suggest that more weight be given to ODA as playing the catalytic role in mobilising private capital for

sustainable development. Policymakers should develop frameworks and policies that promote FDI and reduce dependency on ODA, and any ODA policies should be pro poor to increase the effectiveness of achieving the SDG goals. Also, given the positive impact of ODA on environmental goals, ODA can help governments improve and enhance environmental policies associated with foreign private investment.

Strengthening global partnerships will be imperative for SSA economies, and will enable those countries to meet their partnership goals. In addition, in order to achieve their SDGs, SSA nations ought to encourage financial development and further enhance their governance and institutional qualities. This will ensure the efficiency of FDI and ODA, and as a result, a better allocation of such resources. Meeting the SDG financing challenges can only be achieved within strong capital markets infrastructure that includes appropriate capital intermediation levels. The ability to attract FDI and ODA will help developing countries overcome the challenges of meeting their sustainable agenda and close the funding gap.

### **5.3 Recommendations for further research**

The limitation of the study relates to data availability for both the SDG scores and explanatory variables for SSA countries, which impacted the sample of countries. Time series data was also impacted by the limited data for the SDG scores as the UN agreement came into effect in 2015, and efforts have been made by governments to improve their data collection capabilities. Future studies will benefit as the data is improved over time, and additional data is collected. Other developing nations will gain from the research's focus on SSA nations. Further research can be conducted at the individual country level, which would yield nuanced results for policymakers in managing the balance between their own public financing and external financing sources to create an appropriate balance of funding sources to close their respective funding gaps.

## References

- Abdoul, M., & Hammami, S. (2018). The Dynamic Links Between Environmental Quality, Foreign Direct Investment, and Economic Growth in the Middle Eastern and North African Countries (MENA Region). *Journal of the Knowledge Economy*, 9(33). <https://doi.org/10.1007/s13132-016-0369-5>
- Acquah, A. M., & Ibrahim, M. (2020). Foreign direct investment, economic growth and financial sector development in Africa. *Journal of Sustainable Finance and Investment*, 10(4), 315–334. <https://doi.org/10.1080/20430795.2019.1683504>
- Adjasi, C. K. D., Abor, J., Osei, K. A., & Nyavor-Foli, E. E. (2012). FDI and economic activity in Africa: The role of local financial markets. *Thunderbird International Business Review*, 54(4), 429–439. <https://doi.org/10.1002/tie.21474>
- Agbloyor, E. K., Abor, J. Y., Adjasi, C. K. D., & Yawson, A. (2014). Private capital flows and economic growth in Africa: The role of domestic financial markets. *Journal of International Financial Markets, Institutions and Money*, 30(1), 137–152. <https://doi.org/10.1016/j.intfin.2014.02.003>
- Aguayo-Tellez, E. (2012). *The Impact of Trade Liberalization Policies and FDI on Gender Inequalities : A Literature Review*. <https://openknowledge.worldbank.org/handle/10986/9220>
- Aisen, A., & Veiga, F. J. (2013). How does political instability affect economic growth? *European Journal of Political Economy*, 29, 151–167. <https://doi.org/10.1016/j.ejpoleco.2012.11.001>
- Aitken, B. J., & Harrison, A. E. (1999). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *American Economic Review*, 89(3), 605–618. <https://doi.org/10.1257/aer.89.3.605>
- Akinlo, T., & Dada, J. T. (2021). The moderating effect of foreign direct investment on environmental degradation-poverty reduction nexus: evidence from sub-Saharan African countries. *Environment, Development and Sustainability*, 23(11), 15764–15784. <https://doi.org/10.1007/S10668-021-01315-1/TABLES/4>
- Akinmulegun, S. O. (2012). Foreign Direct Investment (FDI) and standard of living in Nigeria. *Journal of Applied Finance & Banking*, 2(3), 1792–6599.
- Albornoz, F., Cole, M. A., Elliott, R. J. R., & Ercolani, M. G. (2009). In Search of Environmental Spillovers. *World Economy*, 32(1), 136–163. <https://doi.org/10.1111/J.1467-9701.2009.01160.X>
- Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). FDI and economic growth: The role of local financial markets. *Journal of International Economics*, 64(1), 89–112. [https://doi.org/10.1016/S0022-1996\(03\)00081-3](https://doi.org/10.1016/S0022-1996(03)00081-3)
- Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2010). Does foreign direct investment promote growth? Exploring the role of financial markets on linkages. *Journal*

- of Development Economics*, 91(2), 242–256.  
<https://doi.org/10.1016/j.jdeveco.2009.09.004>
- Alfaro, L., Kalemli-Ozcan, S., & Volosovych, V. (2008). Why doesn't capital flow from rich to poor countries? An empirical investigation. In *Review of Economics and Statistics* (Vol. 90, Issue 2, pp. 347–368). MIT Press. <https://doi.org/10.1162/rest.90.2.347>
- Alguacil, M., Cuadros, A., & Orts, V. (2011). Inward FDI and growth: The role of macroeconomic and institutional environment. *Journal of Policy Modeling*, 33(3), 481–496. <https://doi.org/10.1016/j.jpolmod.2010.12.004>
- Alvi, E., & Senbeta, A. (2012). DOES FOREIGN AID REDUCE POVERTY? *Journal of International Development*, 24(8), 955–976. <https://doi.org/10.1002/JID.1790>
- Armah, S., & Nelson, C. (2008). *Is Foreign Aid Beneficial for Sub-Saharan Africa? A panel Data Analysis*. <https://doi.org/10.22004/AG.ECON.6356>
- Arndt, C., Jones, S., & Tarp, F. (2015). Assessing foreign aid's long-run contribution to growth and development. *World Development*, 69, 6–18.  
<https://doi.org/10.1016/j.worlddev.2013.12.016>
- Arvin, B. M., & Barillas, F. (2010). Foreign aid, poverty reduction, and democracy. <http://Dx.Doi.Org.Ezproxy.Uct.Ac.Za/10.1080/00036840210136718>, 34(17), 2151–2156. <https://doi.org/10.1080/00036840210136718>
- Arvin, B. M., & Lew, B. (2009). Foreign aid and ecological outcomes in poorer countries: an empirical analysis. <http://Dx.Doi.Org.Ezproxy.Uct.Ac.Za/10.1080/13504850601018312>, 16(3), 295–299. <https://doi.org/10.1080/13504850601018312>
- Asiedu, E. (2002). On the determinants of foreign direct investment to developing countries: Is Africa different? *World Development*, 30(1), 107–119. [https://doi.org/10.1016/S0305-750X\(01\)00100-0](https://doi.org/10.1016/S0305-750X(01)00100-0)
- Asiedu, E. (2006). Foreign direct investment in Africa: The role of natural resources, market size, government policy, institutions and political instability. *World Economy*, 29(1), 63–77. <https://doi.org/10.1111/j.1467-9701.2006.00758.x>
- Asongu, S. A., & Nwachukwu, J. C. (2017). Foreign Aid and Inclusive Development: Updated Evidence from Africa, 2005–2012. *Social Science Quarterly*, 98(1), 282–298. <https://doi.org/10.1111/ssqu.12275>
- Aust, V., Morais, A. I., & Es Pinto, I. ^ (2019). *How does foreign direct investment contribute to Sustainable Development Goals? Evidence from African countries*. <https://doi.org/10.1016/j.jclepro.2019.118823>
- Aust, V., Morais, A. I., & Pinto, I. (2020). How does foreign direct investment contribute to Sustainable Development Goals? Evidence from African countries. *Journal of Cleaner Production*, 245, 118823. <https://doi.org/10.1016/j.jclepro.2019.118823>
- Azman-Saini, W. N. W., Law, S. H., & Ahmad, A. H. (2010). FDI and economic growth: New evidence on the role of financial markets. *Economics Letters*, 107(2), 211–213. <https://doi.org/10.1016/j.econlet.2010.01.027>

- Bacha, E. L. (1990). A three-gap model of foreign transfers and the GDP growth rate in developing countries. *Journal of Development Economics*, 32(2), 279–296.  
[https://doi.org/10.1016/0304-3878\(90\)90039-E](https://doi.org/10.1016/0304-3878(90)90039-E)
- Baek, J. (2016). A new look at the FDI–income–energy–environment nexus: Dynamic panel data analysis of ASEAN. *Energy Policy*, 91, 22–27.  
<https://doi.org/10.1016/J.ENPOL.2015.12.045>
- Bakhsh, K., Rose, S., Faisal Ali, M., Ahmad, N., & Shahbaz, M. (2017). *Economic growth, CO 2 emissions, renewable waste and FDI relation in Pakistan: New evidences from 3SLS*. <https://doi.org/10.1016/j.jenvman.2017.03.029>
- Balasubramanyam, V. N., Salisu, M., & Sapsford, D. (1996). Foreign Direct Investment and Growth in EP and is Countries. *The Economic Journal*, 106(434), 92.  
<https://doi.org/10.2307/2234933>
- Baloch, M. A., Zhang, J., Iqbal, K., & Iqbal, Z. (2019). The effect of financial development on ecological footprint in BRI countries: evidence from panel data estimation. *Environmental Science and Pollution Research*, 26(6), 6199–6208.  
<https://doi.org/10.1007/S11356-018-3992-9/TABLES/5>
- Bandura, R. (2017). *Rethinking Private Capital for Development*. [https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/171214\\_Bandura\\_RethinkingPrivateCapital\\_Web.pdf](https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/171214_Bandura_RethinkingPrivateCapital_Web.pdf)
- Bigsten, A., & Tengstam, S. (2015). International Coordination and the Effectiveness of Aid. *World Development*, 69, 75–85. <https://doi.org/10.1016/J.WORLDDEV.2013.12.021>
- Birdsall, N., & Wheeler, D. (2016). Trade Policy and Industrial Pollution in Latin America: Where Are the Pollution Havens?: <http://Dx.Doi.Org/10.1177/107049659300200107>, 2(1), 137–149. <https://doi.org/10.1177/107049659300200107>
- Bokpin, G. A. (2017). Foreign direct investment and environmental sustainability in Africa: The role of institutions and governance. *Research in International Business and Finance*, 39, 239–247. <https://doi.org/10.1016/j.ribaf.2016.07.038>
- Boone, P. (1996). Politics and the effectiveness of foreign aid. *European Economic Review*, 40(2), 289–329. [https://doi.org/10.1016/0014-2921\(95\)00127-1](https://doi.org/10.1016/0014-2921(95)00127-1)
- Borensztein, E., de Gregorio, J., & Lee, J. W. (1998a). How does foreign direct investment affect economic growth? *Journal of International Economics*, 45(1), 115–135.  
[https://doi.org/10.1016/S0022-1996\(97\)00033-0](https://doi.org/10.1016/S0022-1996(97)00033-0)
- Borensztein, E., de Gregorio, J., & Lee, J. W. (1998b). How does foreign direct investment affect economic growth? *Journal of International Economics*, 45(1), 115–135.  
[https://doi.org/10.1016/S0022-1996\(97\)00033-0](https://doi.org/10.1016/S0022-1996(97)00033-0)
- Bourguignon, F., & Platteau, J. P. (2017). Does Aid Availability Affect Effectiveness in Reducing Poverty? A Review Article. *World Development*, 90, 6–16.  
<https://doi.org/10.1016/J.WORLDDEV.2015.06.003>

- Brueckner, M., & Lederman, D. (2015). Trade Openness and Economic Growth: Panel Data Evidence from Sub-Saharan Africa. *Economica*, 82, 1302–1323. <https://doi.org/10.1111/ecca.12160>
- Brundtland, G. H. (1987). Our Common Future ('The Brundtland Report'): World Commission on Environment and Development. *The Top 50 Sustainability Books*, 52–55. [https://doi.org/10.9774/gleaf.978-1-907643-44-6\\_12](https://doi.org/10.9774/gleaf.978-1-907643-44-6_12)
- Burnside, C., & Dollar, D. (2000). Aid, policies, and growth. *American Economic Review*, 90(4), 847–868. <https://doi.org/10.1257/aer.90.4.847>
- Calvo, C., Hernandez, M., Calvo, C., & Hernandez, M. A. (2006). *Foreign Direct Investment and Poverty in Latin America*.
- Carkovic, M., & Levine, R. (2005). *Does Foreign Direct Investment Accelerate Economic Growth?*
- Chenery, H. B., & Bruno, M. (1962). Development Alternatives in an Open Economy: The Case of Israel. *The Economic Journal*, 72(285), 79. <https://doi.org/10.2307/2228618>
- Chenery, H. B., & Strout, A. M. (1966). *Foreign Assistance and Economic Development*. 56(4), 679–733.
- Chong, A., Gradstein, M., & Calderon, C. (2009). Can foreign aid reduce income inequality and poverty? *Public Choice* 2009 140:1, 140(1), 59–84. <https://doi.org/10.1007/S11127-009-9412-4>
- Clemens, M. A., Radelet, S., Bhavnani, R. R., Bazzi, S., Kraay, A., Johnson, S., Roodman, D., Subramanian, A., Alsop, M., Birdsall, N., Bourguignon, F., Cline, W., Collier, P., Devarajan, S., Gelb, A., Knack, S., Morrow, D., Timmer, P., Stern, N., ... Wood, A. (2012). Counting Chickens when they Hatch: Timing and the Effects of Aid on Growth\*. *The Economic Journal*, 122(561), 590–617. <https://doi.org/10.1111/J.1468-0297.2011.02482.X>
- Collier, P., & Dollar, D. (2004). Development effectiveness: What have we learnt? *Economic Journal*, 114(496), F244–F271. <https://doi.org/10.1111/j.1468-0297.2004.00221.x>
- Dalgaard, C.-J., Hansen, H., & Tarp, F. (2004). On the Empirics of Foreign Aid and Growth. *The Economic Journal*, 114. <https://academic.oup.com/ej/article/114/496/F191/5089359>
- de Mello, L. R. (1997). Foreign direct investment in developing countries and growth: A selective survey. *Journal of Development Studies*, 34(1), 1–34. <https://doi.org/10.1080/00220389708422501>
- Dhahri, S., & Omri, A. (2020). Are international capital flows really matter for achieving SDGs 1 and 2: ending poverty and hunger? *Review of World Economics*, 156(4), 731–767. <https://doi.org/10.1007/S10290-020-00376-0/TABLES/11>
- Dora Benedek, Edward Gemayel, & Alexander Tieman. (2021). *A Post-Pandemic Assessment of the Sustainable Development Goals*. <https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2021/04/27/A-Post-Pandemic-Assessment-of-the-Sustainable-Development-Goals-460076>

- Doucouliaagos, H., & Paldam, M. (2009). The aid effectiveness literature: The sad results of 40 years of research. *Journal of Economic Surveys*, 23(3), 433–461. <https://doi.org/10.1111/j.1467-6419.2008.00568.x>
- Doumbia, D., & Lauridsen, M. L. (2019). *Closing the SDG Financing Gap-Trends and Data*. <http://www.worldbank.org/en/>
- Dreher, A., Nunnenkamp, P., & Thiele, R. (2008). Does Aid for Education Educate Children? Evidence from Panel Data. *THE WORLD BANK ECONOMIC REVIEW*, 22(2), 291–314. <https://doi.org/10.1093/wber/lhn003>
- Dufrenot, G., Mignon, V., & Tsangarides, C. (2010). The trade-growth nexus in the developing countries: A quantile regression approach. *Review of World Economics*, 146(4), 731–761. <https://doi.org/10.1007/s10290-010-0067-5>
- Dunning, J. H. (1988). The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions. *Source: Journal of International Business Studies*, 19(1), 1–31. <https://about.jstor.org/terms>
- Durham, J. B. (2004). Absorptive capacity and the effects of foreign direct investment and equity foreign portfolio investment on economic growth. *European Economic Review*, 48(2), 285–306. [https://doi.org/10.1016/S0014-2921\(02\)00264-7](https://doi.org/10.1016/S0014-2921(02)00264-7)
- Easterly, W. (2003). Can Foreign Aid Buy Growth? *Source: The Journal of Economic Perspectives*, 17(3), 23–48.
- Easterly, W. (2005). *Can Foreign Aid Save Africa? Can Foreign Aid Save Africa?* [https://digitalcommons.csbsju.edu/clemens\\_lectures](https://digitalcommons.csbsju.edu/clemens_lectures)
- Ekanayake, E. M., & Chatrna, D. (2010). The effect of foreign aid on economic growth in developing countries Special Issue of Journal of Risk and Financial Management View project. *Journal of International Business and Cultural Studies*. <https://www.researchgate.net/publication/255605340>
- Evans, T., Frank, L., & Rebecca, J. (2017). The Effect of Foreign Direct Investment (FDI) on the Ghanaian Economic Growth. *Journal of Business and Economic Development*, 2(5), 240–246. <https://doi.org/10.11648/j.jbed.20170205.11>
- Fang, Y. (2021). Influence of foreign direct investment from China on achieving the 2030 Sustainable Development Goals in African countries. *Chinese Journal of Population, Resources and Environment*, 19(3), 213–220. <https://doi.org/10.1016/J.CJPRE.2021.12.023>
- Farole, T., & Winkler, D. (2012). *Foreign Firm Characteristics, Absorptive Capacity and the Institutional Framework - The Role of Mediating Factors for FDI Spillovers in Low-and Middle-Income Countries*. <http://econ.worldbank>.
- Fauzel, S., Seetanah, B., Sannassee, R., uzal, S. F., & Seetanah Sannassee, B. R. (2015). Foreign direct investment and welfare nexus in sub Saharan Africa. *Source: The Journal of Developing Areas*, 49(4), 271–283.

- Fowowe, B., & Shuaibu, M. I. (2014). Is foreign direct investment good for the poor? New evidence from African countries. *Economic Change and Restructuring*, 47(4), 321–339. <https://doi.org/10.1007/S10644-014-9152-4/TABLES/8>
- Fuller, S. (2002). A Question of Motivations: Determining Why Donor Countries Give Aid. *Res Publica-Journal of Undergraduate Research*, 7.
- Gaspar, V., David Amaglobeli, Garcia-Escribano, M., Prady, D., & Soto, M. (2019). Fiscal Policy and Development: Human, Social, and Physical Investment for the SDGs. IMF Staff Discussion Note SDN/19/3. *IMF Staff Discussion Notes*.
- Gohou, G., & Soumaré, I. (2012). Does Foreign Direct Investment Reduce Poverty in Africa and are There Regional Differences? *World Development*, 40(1), 75–95. <https://doi.org/10.1016/J.WORLDDEV.2011.05.014>
- Görg, H., & Greenaway, D. (2004a). Much Ado about Nothing? Do Domestic Firms Really Benefit from Foreign Direct Investment? *The World Bank Research Observer*, 19(2). <https://doi.org/10.1093/wbro/lkh019>
- Görg, H., & Greenaway, D. (2004b). Much ado about nothing? Do domestic firms really benefit from foreign direct investment? *World Bank Research Observer*, 19(2), 171–197. <https://doi.org/10.1093/wbro/lkh019>
- Grossman, G. M., & Krueger, A. B. (1995). Economic growth and the environment. *Quarterly Journal of Economics*, 110(2), 353–378. <https://go-gale-com.ezproxy.uct.ac.za/ps/i.do?p=AONE&sw=w&issn=00335533&v=2.1&it=r&id=GALE%7CA17085922&sid=googleScholar&linkaccess=fulltext>
- Gui-Diby, S. L., & Renard, M. F. (2015). Foreign Direct Investment Inflows and the Industrialization of African Countries. *World Development*, 74, 43–57. <https://doi.org/10.1016/j.worlddev.2015.04.005>
- Gyimah-Brempong, K. (2015). *Do African Countries Get Health from Health Aid? 1*.
- Hansen, H., & Tarp, F. (2000). *POLICY ARENA AID EFFECTIVENESS DISPUTED*. [https://doi.org/10.1002/\(SICI\)1099-1328\(200004\)12:3<375::AID-JID657>3.0.CO;2-M](https://doi.org/10.1002/(SICI)1099-1328(200004)12:3<375::AID-JID657>3.0.CO;2-M)
- Hatemi-J And, A., & Irandoust, M. (2005). Foreign aid and economic growth: New evidence from panel cointegration. *Journal of Economic Development*, 30(1). <https://www.researchgate.net/publication/226652676>
- Hermes, N., & Lensink, R. (2003). Foreign direct investment, financial development and economic growth. *Journal of Development Studies*, 40(1), 142–163. <https://doi.org/10.1080/00220380412331293707>
- Herzer, D. (2012). How Does Foreign Direct Investment Really Affect Developing Countries' Growth? *Review of International Economics*, 20(2), 396–414. <https://doi.org/10.1111/J.1467-9396.2012.01029.X>
- Hirano, Y., & Otsubo, S. (2014). *Aid Is Good for the Poor*. <http://econ.worldbank.org>.
- Iamsiraroj, S., & Ulubaşoğlu, A. (2015a). *Foreign direct investment and economic growth: A real relationship or wishful thinking?* <https://doi.org/10.1016/j.econmod.2015.08.009>

- Iamsiraroj, S., & Ulubaşoğlu, M. A. (2015b). Foreign direct investment and economic growth: A real relationship or wishful thinking? *Economic Modelling*, 51, 200–213. <https://doi.org/10.1016/J.ECONMOD.2015.08.009>
- Ibrahim, G., Elhiraika, A., Hamdok, A., & Kadir, A. (2011). Revisiting the Determinants of Foreign Direct Investment in Africa: the role of Institutions and Policy Reforms. *Uneca.Org*, 1–26. [http://www.uneca.org/sites/default/files/page\\_attachments/ibrahim\\_et\\_al\\_revisiting\\_the\\_determinants\\_of\\_foreign\\_direct\\_investment\\_in\\_africa\\_1.pdf](http://www.uneca.org/sites/default/files/page_attachments/ibrahim_et_al_revisiting_the_determinants_of_foreign_direct_investment_in_africa_1.pdf)
- Ijaiya, G. T., & Ijaiya, M. A. (2004). Foreign aid and poverty reduction in sub-Saharan Africa: A cross-country investigation. *South African Journal of Economic and Management Sciences*, 7(3), 542–552. <https://doi.org/10.4102/SAJEMS.V7I3.1364>
- Jensen, P. S., & Paldam, M. (2006). Can the two new aid-growth models be replicated? *Public Choice* 2006 127:1, 127(1), 147–175. <https://doi.org/10.1007/S11127-006-0865-4>
- Jude, C., & Leveuge, G. (2017). Growth Effect of Foreign Direct Investment in Developing Economies: The Role of Institutional Quality. *World Economy*, 40(4), 715–742. <https://doi.org/10.1111/twec.12402>
- Juselius, K., Møller, N. F., & Tarp, F. (2014). The Long-Run Impact of Foreign Aid in 36 African Countries: Insights from Multivariate Time Series Analysis\*. *Oxford Bulletin of Economics and Statistics*, 76(2), 153–184. <https://doi.org/10.1111/OBES.12012>
- Kardos, M. (2014). The Relevance of Foreign Direct Investment for Sustainable Development. Empirical Evidence from European Union. *Procedia Economics and Finance*, 15, 1349–1354. [https://doi.org/10.1016/s2212-5671\(14\)00598-x](https://doi.org/10.1016/s2212-5671(14)00598-x)
- Kaya, O., Kaya, I., & Gunter, L. (2013). Foreign Aid and the Quest for Poverty Reduction: Is Aid to Agriculture Effective? *Journal of Agricultural Economics*, 64(3), 583–596. <https://doi.org/10.1111/1477-9552.12023>
- Kilby, C., & Dreher, A. (2010). The impact of aid on growth revisited: Do donor motives matter? *Economics Letters*, 107(3), 338–340. <https://doi.org/10.1016/J.ECONLET.2010.02.015>
- Kim, H., & Jun, H. (2022). *Can Blended Finance Be a Game Changer in Sustainable Development? An Empirical Investigation of the “Lucas Paradox”*. <https://doi.org/10.3390/su14042186>
- Kim, J. E. (2018). Technological capacity building through energy aid: Empirical evidence from renewable energy sector. *Energy Policy*, 122, 449–458. <https://doi.org/10.1016/J.ENPOL.2018.07.003>
- Kirkulak, B., Qiu, B., & Yin, W. (2011). *The impact of FDI on air quality: evidence from China*. <https://doi.org/10.1108/17544401111143436>
- Klein, M. (2001). *Foreign Direct Investment and Poverty Reduction Public-private partnerships, infrastructure investment, and fiscal management View project*. <https://doi.org/10.1596/1813-9450-2613>

- Knack, S. (2001). Aid Dependence and the Quality of Governance: Cross-Country Empirical Tests. *Southern Economic Journal*, 68(2), 310–330. <https://go-gale-com.ezproxy.uct.ac.za/ps/i.do?p=AONE&sw=w&issn=00384038&v=2.1&it=r&id=GALE%7CA80235170&sid=googleScholar&linkaccess=fulltext>
- Kumi, E., Ibrahim, M., & Yeboah, T. (2017). Aid, Aid Volatility and Sectoral Growth in Sub-Saharan Africa: Does Finance Matter? *Journal of African Business*, 18(4), 435–456. <https://doi.org/10.1080/15228916.2017.1363358>
- Lazreg, M., & Zouari, E. (2018). *The relationship between FDI, poverty reduction and environmental sustainability in Tunisia*. <https://hal.archives-ouvertes.fr/hal-01756733>
- Levy, V. (1988). Aid and growth in Sub-Saharan Africa: The recent experience. *European Economic Review*, 32(9), 1777–1795. [https://doi.org/10.1016/0014-2921\(88\)90085-2](https://doi.org/10.1016/0014-2921(88)90085-2)
- Li, X., & Liu, X. (2005a). Foreign Direct Investment and Economic Growth: An Increasingly Endogenous Relationship. *World Development*, 33(3), 393–407. <https://doi.org/10.1016/J.WORLDDEV.2004.11.001>
- Li, X., & Liu, X. (2005b). Foreign Direct Investment and economic growth: An increasingly endogenous relationship. *World Development*, 33(3), 393–407. <https://doi.org/10.1016/j.worlddev.2004.11.001>
- Lim, S. S., Allen, K., Dandona, L., Forouzanfar, M. H., Fullman, N., Goldberg, E. M., Hay, S. I., Holmberg, M., Kutz, M. J., Larson, H. J., Lopez, A. D., McNellan, C. R., Mokdad, A. H., Mooney, M. D., Naghavi, M., Olsen, H. E., Pigott, D. M., Vos, T., Wang, H., ... Zonies, D. (2016). Measuring the health-related Sustainable Development Goals in 188 countries: a baseline analysis from the Global Burden of Disease Study 2015. *The Lancet*, 388(10053), 1813–1850. [https://doi.org/10.1016/S0140-6736\(16\)31467-2](https://doi.org/10.1016/S0140-6736(16)31467-2)
- Lopes, J., Somanje, A. N., Velez, E., Lam, R. D., & Saito, O. (2020). *Determinants of Foreign Investment and International Aid for Meeting the Sustainable Development Goals in Africa: A Visual Cognitive Review of the Literature* (pp. 161–187). Springer, Singapore. [https://doi.org/10.1007/978-981-15-4458-3\\_5](https://doi.org/10.1007/978-981-15-4458-3_5)
- Lucas, R. E. (1990). Why Doesn't Capital Flow from Rich to Poor Countries? *Source: The American Economic Review*, 80(2), 92–96.
- Mabey, N., & McNally, R. (1999). *Foreign Direct Investment and the Environment: From Pollution Havens to Sustainable Development*.
- Magombeyi, M. T., & Odhiambo, N. M. (2017). Foreign Direct Investment And Poverty Reduction. *Comparative Economic Research*, 20(2), 73–89. <https://doi.org/10.1515/cer-2017-0013>
- Mahalik, M. K., Villanthenkodath, M. A., Mallick, H., & Gupta, M. (2021). Assessing the effectiveness of total foreign aid and foreign energy aid inflows on environmental quality in India. *Energy Policy*, 149, 112015. <https://doi.org/10.1016/J.ENPOL.2020.112015>
- Mainali, B., Luukkanen, J., Silveira, S., & Kaivo-oja, J. (2018). Evaluating Synergies and Trade-Offs among Sustainable Development Goals (SDGs): Explorative Analyses of

- Development Paths in South Asia and Sub-Saharan Africa. *Sustainability*, 10(3), 815. <https://doi.org/10.3390/su10030815>
- Malikane, C., & Chitambara, P. (2017a). Foreign Direct Investment, Democracy and Economic Growth in Southern Africa. *African Development Review*, 29(1), 92–102. <https://doi.org/10.1111/1467-8268.12242>
- Malikane, C., & Chitambara, P. (2017b). Foreign Direct Investment, Democracy and Economic Growth in Southern Africa. *African Development Review*, 29(1), 92–102. <https://doi.org/10.1111/1467-8268.12242>
- Mallik, G. (2008). Foreign Aid and Economic Growth: A Cointegration Analysis of the Six Poorest African Countries. *Economic Analysis and Policy*, 38(2), 251–260. [https://doi.org/10.1016/S0313-5926\(08\)50020-8](https://doi.org/10.1016/S0313-5926(08)50020-8)
- McGillivray, M., Feeny, S., Hermes, N., & Lensink, R. (2006). Controversies over the impact of development aid: It works; it doesn't; it can, but that depends ... *Journal of International Development*, 18(7), 1031–1050. <https://doi.org/10.1002/jid.1335>
- Merican, Y., Yusop, Z., Noor, M., & Siong, L. (2007). Foreign Direct Investment and the Pollution in Five ASEAN Nations. *Journal of Economics and Management*, 1(2), 245–261.
- Meyer, K. E. (2004). Perspectives on Multinational Enterprises in Emerging Economies. *Source: Journal of International Business Studies*, 35(4), 259–276. [www.jibs.net](http://www.jibs.net)
- Minoiu, C., & Reddy, S. G. (2010). Development aid and economic growth: A positive long-run relation. *Quarterly Review of Economics and Finance*, 50(1), 27–39. <https://doi.org/10.1016/j.qref.2009.10.004>
- Mishra, P., & Newhouse, D. (2009). Does health aid matter? *Journal of Health Economics*, 28(4), 855–872. <https://doi.org/10.1016/j.jhealeco.2009.05.004>
- Mosley, P. (1986). Aid-effectiveness: The Micro-Macro Paradox. *DS Bulletin*, 17(2), 22–27. <https://doi.org/10.1111/j.1759-5436.1986.mp17002004.x>
- Mosley, P., & Suleiman, A. (2007). Aid, Agriculture and Poverty in Developing Countries. *Review of Development Economics*, 11(1), 139–158. <https://doi.org/10.1111/j.1467-9361.2006.00354.x>
- Museru, M., Toerien, F., & Gossel, S. (2014). The Impact of Aid and Public Investment Volatility on Economic Growth in Sub-Saharan Africa. *World Development*, 57, 138–147. <https://doi.org/10.1016/j.worlddev.2013.12.001>
- Nguea, S. M., Noumba, I., Gilbert Noulou, A., & Noulou, A. G. (2020). Does Foreign Direct Investment Contribute to Poverty Reduction in Cameroon? An ARDL-Bounds Testing Approach. <https://halshs.archives-ouvertes.fr/halshs-02570072>
- Nkusu, M. (2004). *Aid and the Dutch Disease in Low-Income Countries: Informed Diagnoses for Prudent Prognoses*.
- OECD. (2016). <https://doi.org/10.1787/dcr-2016-en>

- OECD. (2020). *Global Outlook on Financing for Sustainable Development 2021*. OECD.  
<https://doi.org/10.1787/e3c30a9a-en>
- Ogunniyi, M. B., & Igberi, C. O. (2014). The Impact of Foreign Direct Investment [FDI] on Poverty Reduction in Nigeria. *Journal of Economics and Sustainable Development* *Www.Iiste.Org ISSN*, 5(14). [www.iiste.org](http://www.iiste.org)
- Olusegun Israel, A. (2014). Impact of Foreign Direct Investment on Poverty Reduction in Nigeria, (1980-2009). *Journal of Economics and Sustainable Development* *Www.Iiste.Org ISSN*, 5(20). [www.iiste.org](http://www.iiste.org)
- Pao, H. T., & Tsai, C. M. (2010). CO2 emissions, energy consumption and economic growth in BRIC countries. *Energy Policy*, 38(12), 7850–7860.  
<https://doi.org/10.1016/J.ENPOL.2010.08.045>
- Pickbourn, L., & Ndikumana, L. (2016). The Impact of the Sectoral Allocation of Foreign aid on Gender Inequality. *Journal of International Development*, 28(3), 396–411.  
<https://doi.org/10.1002/jid.3213>
- Purvis, B., Mao, Y., & Robinson, D. (2019). Three pillars of sustainability: in search of conceptual origins. *Sustainability Science*, 14(3), 681–695.  
<https://doi.org/10.1007/S11625-018-0627-5/FIGURES/1>
- Rajan, R. G., & Subramanian, A. (2005). *Aid and Growth: What Does the Cross-Country Evidence Really Show?*
- Rajan, R. G., & Subramanian, A. (2011). Aid, Dutch disease, and manufacturing growth. *Journal of Development Economics*, 94(1), 106–118.  
<https://doi.org/10.1016/j.jdevco.2009.12.004>
- Reiter, S. L., & Steensma, H. K. (2010). *Human Development and Foreign Direct Investment in Developing Countries: The Influence of FDI Policy and Corruption*.  
<https://doi.org/10.1016/j.worlddev.2010.04.005>
- Ridzuan, A., Ismail, N., & Che Hamat, A. (2017). Does Foreign Direct Investment Successfully Lead to Sustainable Development in Singapore? *Economies*, 5(3), 29.  
<https://doi.org/10.3390/economies5030029>
- Rodrik, D. (1990). How should structural adjustment programs be designed? *World Development*, 18(7), 933–947. [https://doi.org/10.1016/0305-750X\(90\)90077-B](https://doi.org/10.1016/0305-750X(90)90077-B)
- Rodrik, D., & Kennedy, J. F. (2016). An African Growth Miracle? †. *Journal of African Economies*, 1–18. <https://doi.org/10.1093/jae/ejw027>
- Rozenberg, J., & Fay, M. (2019). Beyond the Gap: How Countries Can Afford the Infrastructure They Need while Protecting the Planet. In *Beyond the Gap: How Countries Can Afford the Infrastructure They Need while Protecting the Planet*. Washington, DC: World Bank. <https://doi.org/10.1596/978-1-4648-1363-4>
- Runde, D. F., Savoy, C. M., & Carter, P. (2016). *Development Finance Institutions Come of Age*. [www.csis.org](http://www.csis.org)

- Saggi, K. (2002). Trade, Foreign Direct Investment, and International Technology Transfer: A Survey. In *The World Bank Research Observer* (Vol. 17, Issue 2).
- Sato, R. (1964). The Harrod-Domar Model vs the Neo-Classical Growth Model. *The Economic Journal*, 74(294), 380. <https://doi.org/10.2307/2228485>
- SDGs Center for Africa. (2020). *2020 Africa SDG Index and Dashboards Report - Sustainable Development Report*. <https://www.sdgindex.org/reports/2020-africa-sdg-index-and-dashboards-report/>
- SDGs Centre for Africa, & SDSN. (2019). *2019 Africa SDG Index and Dashboard Report*. [https://s3.amazonaws.com/sustainabledevelopment.report/2019/2019\\_africa\\_index\\_and\\_dashboards.pdf](https://s3.amazonaws.com/sustainabledevelopment.report/2019/2019_africa_index_and_dashboards.pdf)
- Sharma, K., Bhattarai, B., & Ahmed, S. (2019). Aid, Growth, Remittances and Carbon Emissions in Nepal. *The Energy Journal*, 40(1), 129–141. <https://doi.org/10.5547/01956574.40.1.KSHA>
- Solarin, S. A., & Al-Mulali, U. (2018). Influence of foreign direct investment on indicators of environmental degradation. *Environmental Science and Pollution Research*, 25(25), 24845–24859. <https://doi.org/10.1007/S11356-018-2562-5/TABLES/6>
- Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *Source: The Quarterly Journal of Economics*, 70(1), 65–94.
- Sumner, A. (2007). Is foreign direct investment good for the poor? A review and stocktake. <https://doi-org.ezproxy.uct.ac.za/10.1080/09614520500076183>, 15(3–4), 269–285. <https://doi.org/10.1080/09614520500076183>
- Sunde, T. (2017). Foreign direct investment, exports and economic growth: ADRL and causality analysis for South Africa. *Research in International Business and Finance*, 41, 434–444. <https://doi.org/10.1016/j.ribaf.2017.04.035>
- Ucal, M. Ş. (2014). Panel Data Analysis of Foreign Direct Investment and Poverty from the Perspective of Developing Countries. *Procedia - Social and Behavioral Sciences*, 109, 1101–1105. <https://doi.org/10.1016/J.SBSPRO.2013.12.594>
- UN. (2015). *Addis Ababa Action Agenda of the Third International Conference on Financing for Development*.
- UN General Assembly. (2015). *Transforming our World: The 2030 Agenda for Sustainable Development*.
- UNCTAD. (2014). *World Investment Report 2014*.
- UNCTAD. (2018). *World Investment Report 2018*. [https://unctad.org/system/files/official-document/wir2018\\_en.pdf](https://unctad.org/system/files/official-document/wir2018_en.pdf)
- UNCTAD. (2019). *World Investment Report 2019*.
- UNCTAD. (2020). *World Investment Report 2020*.
- UNCTAD. (2021, September 28). <https://unctad.org/osgstatement/unctad-economic-development-africa-report-2020-press-conference>

- UNCTAD. (2022). *Methodological Note: World Investment Report 2022*.
- United Nations. (2015). *Transforming our World: The 2030 Agenda for Sustainable Development*.
- Walter, I., & Ugelow, J. L. (1979). Environmental Policies in Developing Countries. *Technology, Development and Environmental Impact*, 8(3), 102–109.
- World Bank. (2019). *From Funding to Financing Transforming SDG finance for country success*. [www.weforum.org](http://www.weforum.org)
- World Bank. (2020). *The number of poor people continues to rise in Sub-Saharan Africa, despite a slow decline in the poverty rate*. World Bank Blogs. <https://blogs.worldbank.org/opendata/number-poor-people-continues-rise-sub-saharan-africa-despite-slow-decline-poverty-rate>
- Wu, J. Y., & Hsu, C. C. (2012). Foreign direct investment and income inequality: Does the relationship vary with absorptive capacity? *Economic Modelling*, 29(6), 2183–2189. <https://doi.org/10.1016/j.econmod.2012.06.013>
- Wu, X., & Li, N. (2011). Impact Analysis of the Foreign Investment on Environmental Quality of Shandong. *Energy Procedia*, 5, 1143–1147. <https://doi.org/10.1016/J.EGYPRO.2011.03.200>
- Xie, F., & Zhang, B. (2021). Impact of China's outward foreign direct investment on green total factor productivity in "Belt and Road" participating countries: a perspective of institutional distance. *Environmental Science and Pollution Research*, 28(4), 4704–4715. <https://doi.org/10.1007/S11356-020-10849-2/TABLES/5>
- Yogo, T. U. (2017). Assessing the Effectiveness of Foreign Aid in the Education Sector in Africa: The Case of Primary Education. *African Development Review*, 29(3), 389–402. <https://doi.org/10.1111/1467-8268.12276>
- Yogo, U. T., & Mallaye, D. (2015). Health Aid and Health Improvement in Sub-Saharan Africa: Accounting for the Heterogeneity Between Stable States and Post-Conflict States. In *Journal of International Development* (Vol. 27, Issue 7, pp. 1178–1196). John Wiley and Sons Ltd. <https://doi.org/10.1002/jid.3034>
- Young, A. T., & Sheehan, K. M. (2014). Foreign aid, institutional quality, and growth. *European Journal of Political Economy*, 36, 195–208. <https://doi.org/10.1016/j.ejpoleco.2014.08.003>