

ANALYSIS ON THE FOREIGN DIRECT INVESTMENT, ECONOMIC
GROWTH, AND ECONOMIC DEVELOPMENT IN CHAD

GANAMA MOUSTAPHA GUEME

A thesis submitted in
fulfillment of the requirement for the award of the
Doctor of Philosophy in Technology Management

Faculty of Technology Management and Business
Universiti Tun Hussein Onn Malaysia

OCTOBER 2022

“To Almighty Allah, who gave me strength and wisdom to complete this work.

To my dearest and beloved father, Maître Dr Moustapha Gueme, you were not able to see my final wok, but May Allah grant you Jannah and I promise to make you proud.

Dear beloved late Father, Thank you for your priceless love and support.

To my beloved mother, thank you for your kindness and prayers, may Allah keep you healthy and grant you a long life”



PTTA UTHM
PERPUSTAKAAN TUNKU TUN AMINAH

ACKNOWLEDGEMENT

My sincere gratitude firstly goes to Allah وَتَعَالَى سُبْحَانَهُ (subhānahu wata‘ālā, "glorious and exalted is He") for giving strength, patience, health, and his wisdom to accomplish this research work. My countless gratitude goes to my beloved parents who never stopped being there for me since my childhood until this journey.

To my father who is no longer from this world, I have no doubt you will know how much I hoped to repay all the Goodness you input for me and the priceless sacrifice which I can never repay back. You did not have the chance to see the product of your hard work, but Allah know best. Dear father, you did not get the chance to live long enough to see what I was able to accomplish with this knowledge and carry on your legacy. Furthermore, I show my deepest appreciations to my mother, siblings and my other family members who always put me in their prayers and who always encouraged me.

My sincere appreciation and thanks go to my supervisor, Associate Professor Dr. Maimunah Binti Ali who supported and helped me with her valuable guidance throughout this long journey which I would not be able to accomplish without her tremendous guidance and encouragement. She brightly helped to coordinate my research and she was never tired of helping me whenever I ask for her guidance and opinion. Another one of my deepest appreciation goes to my friends and colleagues who always gave me their support and appreciation. My special appreciation is addressed to the strong and dynamic staff of the Universiti Tun Hussein Onn Malaysia (UTHM) and to the Faculty of Technology Management and Business for their countless support, and access to the required necessary information to complete this thesis research.

ABSTRACT

Economic development has become the central focus of the development agenda in many developing countries. Despite the increasing number of research conducted in economic development, little has been done to the impact of economic growth and foreign direct investment (FDI) from Sub-Sahara African (SSA) countries, especially in Chad. However, the economic instability and fluctuation in FDI has resulted in low human development, high unemployment, and a low standard of living over the years. Despite the improvement in economic growth in Chad and the amount of FDI the country has received, economic development is still not satisfactory, especially with regards to human development, unemployment levels, and standard of living. Therefore, the aim of this study is to investigate the impact of economic growth and FDI on economic development in the context of Chad. The study collected a sample of time series data from 1980 to 2019 from the World Bank and the national statistical database of Chad. Hence, data were analyzed using the autoregressive distributed lag techniques (ARDL, and NARDL), along with pairwise Granger causality test. The results suggest that economic growth significantly influences economic development in the long-run and short-run. In contrast, FDI has only a partially significant impact on economic development. Additionally, economic growth only Granger-caused the standard of living dimension, while the other two dimensions show no evidence of causality from economic growth to economic development. Also, no Granger causality evidence was found from FDI to economic development. The results from the NARDL further confirm the symmetric effect between GDP growth, FDI and economic development in Chad. This study is beneficial to the government authorities and policymakers of Chad, international organizations, and the extant literature on FDI, economic growth and development. Thus, it is highly recommended that the Chadian government structure a strong government intervention in social sectors such as education, health, and improved standard of living by creating more job opportunities in order to strengthen the overall economic development of the country.

ABSTRAK

Pembangunan ekonomi telah menjadi tumpuan utama agenda pembangunan di banyak negara membangun. Walaupun semakin banyak penyelidikan yang dijalankan dalam pembangunan ekonomi, sedikit yang telah dilakukan terhadap kesan pertumbuhan ekonomi dan pelaburan langsung asing (FDI) dari negara Afrika Sub-Sahara (SSA), terutamanya di Chad. Walau bagaimanapun, ketidakstabilan ekonomi dan turun naik FDI telah mengakibatkan pembangunan manusia yang rendah, pengangguran yang tinggi, dan taraf hidup yang rendah selama ini. Di sebalik peningkatan dalam pertumbuhan ekonomi di Chad dan jumlah FDI yang diterima negara, pembangunan ekonomi masih tidak memuaskan, terutamanya dari segi pembangunan manusia, tahap pengangguran dan taraf hidup. Oleh itu, tujuan kajian ini adalah untuk menyiasat kesan pertumbuhan ekonomi dan FDI terhadap pembangunan ekonomi dalam konteks Chad. Kajian itu mengumpul sampel data siri masa dari 1980 hingga 2019 daripada Bank Dunia dan pangkalan data statistik nasional Chad. Oleh itu, data dianalisis menggunakan teknik lag teragih autoregresif (ARDL, dan NARDL), bersama-sama dengan ujian kausaliti Granger berpasangan. Keputusan menunjukkan bahawa pertumbuhan ekonomi sangat mempengaruhi pembangunan ekonomi dalam jangka panjang dan jangka pendek. Sebaliknya, FDI hanya memberi impak yang ketara kepada pembangunan ekonomi. Di samping itu, pertumbuhan ekonomi hanya Granger yang menyebabkan dimensi taraf hidup, manakala dua dimensi lain tidak menunjukkan bukti sebab-musabab daripada pertumbuhan ekonomi kepada pembangunan ekonomi. Juga, tiada bukti kausaliti Granger ditemui daripada FDI kepada pembangunan ekonomi. Keputusan daripada NARDL mengesahkan lagi kesan simetri antara pertumbuhan KDNK, FDI dan pembangunan ekonomi di Chad. Kajian ini bermanfaat kepada pihak berkuasa kerajaan dan penggubal dasar Chad, organisasi antarabangsa, dan literatur yang masih ada tentang FDI, pertumbuhan ekonomi dan pembangunan. Oleh itu, adalah amat disyorkan agar kerajaan Chad menstrukturkan campur tangan kerajaan yang kukuh dalam sektor sosial seperti pendidikan, kesihatan, dan peningkatan taraf hidup dengan mewujudkan lebih banyak peluang pekerjaan bagi mengukuhkan pembangunan ekonomi negara secara keseluruhan.

CONTENTS

TITLE	i
DECLARATION	iii
DEDICATION	iv
ACKNOWLEDGEMENT	v
ABSTRACT	vi
ABSTRAK	vii
CONTENTS	viii
LIST OF TABLES	xiv
LIST OF FIGURES	xvi
LIST OF SYMBOLS	xvii
LIST OF ABBREVIATIONS	xviii
LIST OF APPENDICES	xix
LIST OF PUBLICATIONS	233
CHAPTER 1 INTRODUCTION	1
1.1 Introduction	1
1.2 Background of the study	2
1.2.1 Profile of Chad	3
1.2.2 Economic Development	3
1.2.3 Economic Growth	9
1.2.4 Foreign Direct Investment	11
1.3 Problem statement	14
1.4 Research questions	15
1.5 Research objectives	16
1.6 Significance of the study	16
1.7 Scope of the study	17
1.8 Motivation of the study	17
1.9 Structure of the thesis	18

1.10	Research paln	20
1.11	Chapter summary	21
CHAPTER 2	LITERATURE REVIEW	22
2.1	Introduction	22
2.2	Theoretical Review	22
2.3	Concept of Economic Development	22
2.3.1	Indicators of Economic Development	24
2.3.1.1	Human Development	24
2.3.1.2	Unemployment rate	26
2.3.1.3	Standard of Living	27
2.4	Concept of Economic Growth	28
2.4.1	Indicator of Economic Growth	29
2.4.1.1	Gross domestic product	29
2.5	Concept of Foreign direct investment	30
2.5.1	Indicator of FDI	31
2.5.1.1	Capital inflow	32
2.6	Underpinning Theories of Economic Development	33
2.6.1	Theory of Human Development	33
2.6.1.1	Amartya Sen's Capability Approach to Human Development	35
2.6.2	Theory of Unemployment	38
2.6.2.1	Okun's Theory of Unemployment	39
2.6.3	Theory of Standard of Living	41
2.6.3.1	Pigou Approaches to Standard of Living	42
2.7	Theory of Economic Growth	45
2.8	Theory of Foreign Direct Investment	48
2.9	Empirical Review	50
2.9.1	Relationship Between Economic Growth and Economic Development	50
2.9.1.1	Relationship Between Economic Growth and Human Development	51
2.9.1.2	Relationship Between Economic Growth and Unemployment	54



2.9.1.3	Relationship Between Economic Growth and Standard of Living	57
2.9.2	Relationship Between FDI and Economic Development	62
2.9.2.1	Relationship Between FDI and Human Development	62
2.9.2.2	Relationship Between FDI and Unemployment	64
2.9.2.3	Relationship Between FDI and Standard of living	66
2.10	Research gap	70
2.11	Chapter summary	73
CHAPTER 3	RESEARCH METHODOLOGY	74
3.1	Introduction	74
3.2	Theoretical Framework	74
3.2.1	Conceptual Framework	75
3.3	Hypotheses Development	76
3.3.1	Economic growth and Economic Development	77
3.3.2	FDI and Economic Development	78
3.4	Econometric Modelling	79
3.5	Justification of variables	83
3.5.1	Human Development	84
3.5.2	Unemployment Rate	84
3.5.3	Standard of Living	85
3.5.4	Economic Growth	85
3.5.5	FDI Inflow	86
3.5.6	Gross Capital Formation	86
3.5.7	Trade Openness	87
3.5.8	Inflation Rate	87
3.5.9	Dummy Variable for structural break issue	87
3.6	Data Source	88
3.7	Method of Analysis	89
3.7.1	Unit Root Test	90
3.7.1.1	Augmented Dickey Fuller test	90
3.7.1.2	Philips and Perron test	92
3.7.2	Unit Root Test and Structural Break Issue	92



3.7.2.1	Zivot-Andrews' Unit Root Test With One Structural Break	93
3.7.2.2	Perron Unit Root Test With One Structural Break	94
3.7.3	Justification for Using Unit Root Test for Linear and non-linear ARDL	96
3.7.4	Justification for Using Linear and non-linear ARDL	97
3.7.5	Autoregressive Distributed Lag With Structural Break	99
3.7.5.1	Optimal Lag Length Selection	99
3.7.5.2	Bound Test for Cointegration	100
3.7.5.3	Optimal Model Selection	103
3.7.5.4	Long-run Estimation	103
3.7.5.5	Short-run Estimation	104
3.7.6	Non-Linear ARDL With Structural Break	108
3.7.6.1	Optimal Lag Length Selection	108
3.7.6.2	NARDL Bound Test for Cointegration	109
3.7.6.3	NARDL Long-run Estimation	113
3.7.6.4	NARDL Short-run Estimation	115
3.7.6.5	Asymmetry Test	118
3.7.7	Granger Causality Test	121
3.7.8	Diagnostic Tests	123
3.7.8.1	Serial Correlation Problem	123
3.7.8.2	Heteroskedasticity Problem	124
3.7.8.3	Specification Error Test	125
3.7.8.4	Normality Test	125
3.7.8.5	Stability Test	126
3.8	Chapter summary	127
CHAPTER 4	ANALYSIS AND DISCUSSION	128
4.1	Introduction	128
4.2	Preliminary Data Analysis	129
4.2.1	Descriptive Statistics Results	129
4.2.2	Correlation Analysis Results	130
4.3	Unit Root Test For Stationarity Results	132
4.4	ARDL Estimation Results	135

4.4.1	Lag Length Selection Criteria	136
4.4.2	Bounds Test For Cointegration Results	137
4.4.3	ARDL Optimal Model Selection	138
4.4.4	ARDL Estimation Results For Long-run Relationships	141
4.4.5	Short-Run Dynamics Estimation	148
4.4.6	Granger Causality Test	154
4.4.7	Diagnostics Tests	157
4.5	Non-Linear ARDL Estimation Results	159
4.5.1	Bounds Test For Cointegration Results	159
4.5.2	NARDL Optimal Model Selection	160
4.5.3	NARDL Long-run and Short-run Estimated Coefficients	164
4.5.4	Diagnostics Tests	173
4.5.5	Summary of the Key Findings	175
4.5.6	Chapter Summary	177
CHAPTER 5 DISCUSSION, CONCLUSION AND RECOMMENDATION		178
5.1	Introduction	178
5.1	Discussion of the Findings	178
5.1.1	The impacts of Economic Growth and Foreign Direct Investment on the Human development in Chad	179
5.1.2	The impacts of Economic Growth and FDI on Unemployment in Chad	182
5.1.3	The impacts of Economic Growth and FDI on Standard of Living in Chad	184
5.1.4	The Existence of Causality Direction Between Economic Growth, And FDI With Economic Development in Chad	187
5.1.4.1	The Existence of Causality Between FDI, And Economic Growth With Human Development in Chad	187
5.1.4.2	The Existence of Causality Between FDI, And Economic Growth with Unemployment in Chad	188



5.1.4.3	The Existence of Causality Between FDI, And Economic Growth With The Standard of Living in Chad	189
5.2	Implication and Contribution of The Research	189
5.2.1	Practical Contributions	190
5.2.2	Theoretical Contribution	192
5.2.3	Policy implication	193
5.3	Limitation of The Study	195
5.4	Recommendation For Future Studies	195
5.5	Conclusion	196
	REFERENCES	198
	APPENDICES	232
	VITA	235



PTTA UTHM
PERPUSTAKAAN TUNKU TUN AMINAH

LIST OF TABLES

2.1: Summary of Various Definitions of Economic Development	23
2.2: Summary of studies on economic growth and economic development	59
2.3: Summary of studies on FDI and economic development	68
2.4: Summary of studies on FDI, economic growth and	71
3.1: Variable Justification and Measurement	88
4.1: Descriptive Statistics	129
4.2: Correlation analysis for model 1	131
4.3: Correlation analysis for model 2	131
4.4: Correlation analysis for model 3	132
4.5: ADF unit root test results	132
4.6: Philip Perron unit root test results	133
4.7: Zivot and Andrews (1992) with one structural break unit root test	134
4.8: Perron structural break unit root test results	135
4.9: Lag order selection criteria for HD model	136
4.10: Lag order selection criteria for UNM model	136
4.11: Lag order selection criteria for SOL model	136
4.12: Bound test for cointegration for HD model	137
4.13: Bound test for cointegration for UNM model	137
4.14: Bound test for cointegration for SOL model	138
4.15: ARDL Estimates for human development model	138
4.16: ARDL Estimates for unemployment model	139
4.17: ARDL Estimates for the standard of living model	140
4.18: Estimated long-run coefficients for the HD model	142
4.19: ARDL Estimates for UNM and economic growth model	144
4.20: Estimated long-run coefficients for the SOL model	146
4.21: Error correction representation for the selected HD model	148
4.22: Short-run estimation for the selected UNM model	150

4.23: Error correction representation for the selected SOL model	151
4.24: Pairwise Granger Causality for HD model	154
4.25: Pairwise Granger Causality UNM model	155
4.26: Pairwise Granger Causality SOL model	155
4.27: Bound test for cointegration for HD model	159
4.28: Bound test for cointegration for UNM model	159
4.29: Bound test for cointegration for SOL model	160
4.30: NARDL Estimates for human development model	160
4.31: ARDL Estimates for unemployment model	162
4.32: ARDL Estimates for the standard of living model	163
4.33: Estimated long-run coefficients for the HD model	164
4.34: Error correction representation for the selected HD model	165
4.35: Results of the Asymmetry Wald Test	167
4.36: Long-run estimation for the selected UNM model	167
4.37: Short-run estimation for the selected UNM model	169
4.38: Results of the Asymmetry Wald Test	170
4.39: Estimated long-run coefficients for the SOL model	170
4.40: Error correction representation for the selected SOL model	172
4.41: Results of the Asymmetry Wald Test	173
4.42: Summary results of the ARDL Long-run and Short-run relationship	175



LIST OF FIGURES

1.1: Human Development of selected countries (2012-2019)	4
1.2: Human Development of Chad (1980-2018)	5
1.3: Selected countries unemployment rate (2012-2019)	6
1.4: The unemployment rate in Chad (1980-2020)	7
1.5: Standard of Living (% GNI growth) in selected countries	7
1.6: Standard of Living of Chad	8
1.7: GDP Growth rate (% annual) in selected countries (2012-2020)	9
1.8: GDP Growth rate (%) of Chad (1980-2020)	10
1.9: Selected countries FDI, net inflows (% of GDP) (2012-2019)	12
1.10: FDI, net inflows (% of GDP) in Chad (1980-2019)	13
1.11: Overall Research Process	20
3.1: Conceptual Framework	76
4.1: CUSUM and CUSUMQ for HD model	157
4.2: CUSUM and CUSUMQ for UNM model	158
4.3: CUSUM and CUSUMQ for SOL model	158
4.4: CUSUM and CUSUMQ for HD model	174
4.5: CUSUM and CUSUMQ for UNM model	174
4.6: CUSUM and CUSUMQ for SOL model	174

LIST OF SYMBOLS

t	-	Time
β	-	Parameter
ε	-	Error term
Δ	-	Difference operator
μ and δ	-	Parameters to be estimated
Σ	-	Sum of coefficients



LIST OF ABBREVIATIONS

AfDB	-	African Development Bank
FDI	-	Foreign Direct Investment
GDP	-	Gross Domestic Product
GNI	-	Gross National Income
GSMA	-	Global System Mobile Association
HDI	-	Human Development Index
ICT	-	Information And Communication Technology
IMF	-	International Monetary Fund
ITA	-	International Trade Administration
KPMG	-	Klynveld Peat Marwick Goerdeler
MDG	-	Millennium Development Goals
MENA	-	Middle East and Northern Africa
NGOs	-	Non-Governmental Organizations
OECD	-	Organization for Economic Co-Operation and Development
R&D	-	Research and Development
SSA	-	Sub-Saharan Africa
UN	-	United Nations
UNCTAD	-	United Nations Conference on Trade and Development
UNDP	-	United Nations Development Program
U.S	-	United States
VAT	-	Value Added Tax
WDI	-	World Development Indicators

LIST OF APPENDICES

APPENDIX	TITLE	PAGE
A	Administrative Map of Chad	233
B	Chad GDP at Annual Growth Rate	234
C	Descriptive statistics outcomes Correlation analysis outcomes	235
D	ARDL Long-run Form and Bounds Test Results	236
E	Turnitin plagiarism report	248
F	Proofreading certificate	249
G	Publication certificates	250



PTTA UTHM
PERPUSTAKAAN TUNKU TUN AMINAH

CHAPTER 1

INTRODUCTION

1.1 Introduction

Economic development is a systematic process that influences growth and economic reform (Todaro and Smith, 2011). Economic reform involves three major areas: government policies undertaken to meet inflation targeting, high employment, and sustainable growth. Furthermore, economic reform also includes policies and services vis-à-vis infrastructure, public transport facilities, and healthcare access to the poor. The last area involves policies and programs designed to improve a country's business climate from finance, neighborhood development, business retention, and business expansion (The International Economic Development Council, 2018).

In addition, economic development is defined as a multidimensional process comprising major changes in social structure, national institutions, the acceleration of economic growth, poverty reduction and eradication, and the reduction of inequality (Todaro and Smith, 2015). For example, several studies in economic development and growth have substantiated the significance of foreign direct investment (FDI) (Oluwapemi, 2017). It has been widely accepted in theory and practice that FDI leads to several economic benefits for a country. For instance, the inflow of FDI in a host country can improve human development, the standard of living (through the gross national income (GNI)), unemployment, and the GDP growth of a country (Sun, 2002; Loots and Kabundi, 2017). As a result, GDP growth is considered an essential indicator of a country's economic strength, and positive change is an indicator of economic growth (Kigali, 2012; Broadberry *et al.*, 2015; Plecher, 2020(a)).

Furthermore, economic growth is the measure of change in the gross domestic product (GDP) from one year to the next. Hence, the GDP of an economy comprises the total production and it is also the total value of all final goods and services produced within a country in a specific time period (usually in years). However, between the year 2019 and 2021, more than half of the world population had no access to social protection. This practice sustained a high level of subsistence activities in the region. This problem has further pushed the target level of human progress and growth from being attained, with decent jobs creation in Sub-Sahara African (SSA) countries, especially in Chad. Therefore, to address the issue of economic development, economic growth in Africa needs to increase to double-digit levels in order to reach the United Nations's objective of millennium development (Bangura, 2019). In addition, FDI has been long argued to be a vital ingredient of successful and sustainable economic growth. It also appears to be a part of the mechanism of social-economic development (United Nations Industrial Development Organization, 2008).

On the other hand, as defined by United Nations Conference on Trade and Development (UNCTAD) (2018), foreign direct investment is an investment involving a long-term relationship reflecting a lasting interest and control by a resident of the entity in an economy. This resident entity is the foreign director or parent firm in an enterprise, resident in an economy other than the foreign direct investor (oversea). For example, FDI is often derived from net foreign direct investment inflows and the balance of payment. The level of control is difficult to define, leading the UNCTAD to state that control exists when the investing entity owns at least 10% of the ordinary share or voting power of the overseas operations (Fahad, 2014). Hence, in this era of an increasingly globalized economy, FDI is particularly a significant driving force of economic development of almost all nations. Therefore, this study investigates the impacts of FDI and economic growth on economic development in Chad. This introduction gives a foundational knowledge of the issues that necessitate the study.

1.2 Background of the study

Since 2003, oil has generated the overall export revenue of Chad after agriculture as the main driver of the Chadian economy (World Population Review, 2019). This

section discussed the profile of Chad, economic development, economic growth, followed by FDI in Chad.

1.2.1 Profile of Chad

Chad is a landlocked country located in Northern Central Africa and gained its independence in 1960 from France. Both French and Arabic are the country's official languages (The Heritage Foundation, 2019). Libya borders Chad to the North; Nigeria and Cameroon to the West; Soudan to the East; and the Central African Republic to the South. It is the fifth-largest country in Africa by size (Nations Online Project, 2014). Furthermore, Chad has a desert zone, an arid belt, and a fertile savanna zone with an average area of 495,624 square miles of 1,284,0000 Km² with an estimated increasing population of 15.95 million in 2019 (World Population Review, 2019). However, only 26% of Chadians live in urban areas, but almost half are under 15 years of age (The World Bank, 2019); (see Figure 1; and Figure 2 Appendix A). However, uneven economic development and growth have further strained the country's economic development. On the other hand, the gross domestic product (GDP) was USD 1768.15 in 2017 (World Population Review, 2019) and FDI inflow has been fluctuating over the years.

1.2.2 Economic Development

Economic development in this study is measured using human development (e.g. Metcalfe, 2009; Mackie, 2012; Gohou and Soumaré, 2012; Ejubekpokpo, 2016; Akanbi, 2017; Stewart *et al.*, 2018; UNDP, 2019; Gueme *et al.*, 2020; Ntuli and Kwenda, 2020; Kounou, 2020), unemployment rate (e.g. Al-Hilani, 2012; Silve, 2013; South Africa Planning Monitoring and Evaluation, 2013; Oluwapemi, 2017; Rashid, 2018; Soylu, Çakmak and Okur, 2018; Georgescu and Herman, 2019), and standard of living (e.g. Capelli and Vaggi, 2013; Silve, 2013; Madzík *et al.*, 2015; World Bank Group, 2016; Maqin and Sidharta, 2017; Zheng and Sheng, 2017; Stewart, Ranis and Samman, 2018; UNCTAD, 2019; World Population Review, 2019; Saxena and Bansal, 2019; UNDP, 2020). These indicators have been compared with a few selected countries, including Chad. Therefore, Figure 1. 1 illustrates the selected Sub-Sahara

African (SSA) countries in a comparative perspective (2012-2019) with a particular Asian country (Malaysia) which gives insight into human development performance. It clearly shows that Malaysia is a country that better achieved its human development index (HDI) among the eight selected SSA countries.

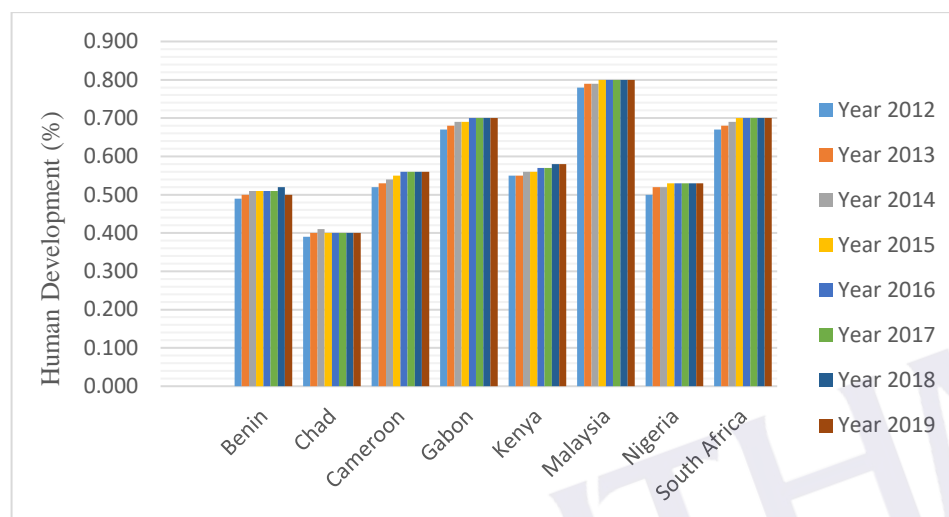


Figure 1.1: Human Development of selected countries (2012-2019)

(Knoema.com, 2019)

In comparison, the figure indicates that Malaysia has achieved an HDI of 0.8, followed by South Africa with an HDI of 0.70 in 2018, which is significant compared to Chad and Benin, which share the lowest HDI. However, the HDI value of Chad was 0.401 in 2018, which put the country in the low human development category, positioning it at 187 out of 189 countries and territories. In addition, Gabon tends to have a significant value of HDI, especially from 2016 to 2019 compared to Kenya, which achieved average values of 0.58% in both 2018 and 2019. From the perspective of Sub-Saharan Africa, the HDI of Chad ranked 0.398 in 2019, which is lower than the average HDI of 0.513 for countries in the low human development group; and below the average of 0.547 for Sub-Saharan African countries.

The low rank in human development in Chad has led the country to achieve a record of 46.7% of poverty level despite the government budget allocations in the health and education sectors. The socioeconomic sector shows that nearly 21% of the population and women specifically experience food insecurity. In terms of education, the African Development Bank (2015), more than 50% of the population, especially women, do not have access to education. Therefore, to improve the human

development situation in Chad, the Millennium Development Goals (MDGs), targeted to reduce poverty and improve health in the country (African Development Bank, 2015).

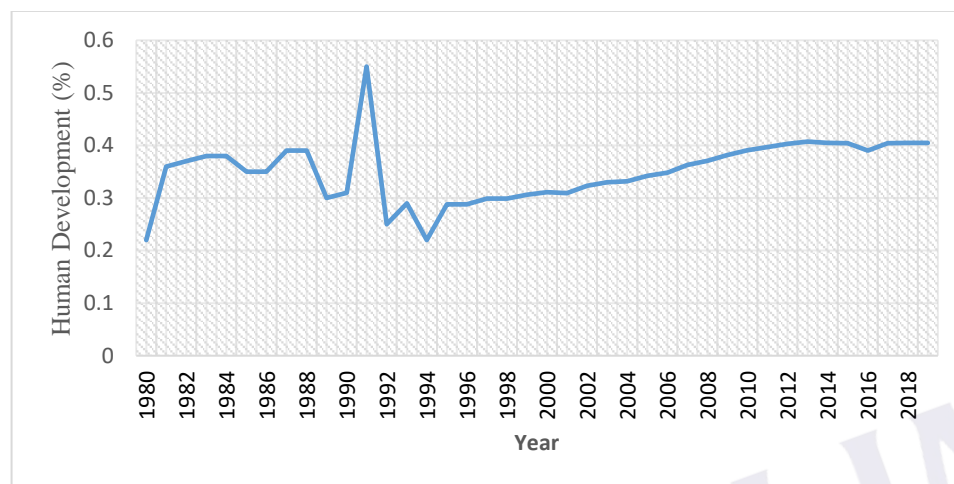


Figure 1.2: Human Development of Chad (1980-2018)

(World Bank, 2019; UNDP, 2020)

Additionally, Figure 1.2 confirms that the value of human development in Chad between the years 1980 to 1990 has been fluctuating in a decreasing sense. The country managed to achieve a higher value of 0.56 between 1991 and 1992. Between 2000 to 2019, the HDI value of Chad slightly increased from 0.293 to only 0.398 with a percentage of 35.8 (United Nations Development Programme, 2020). Therefore, the inequality level increased in the country due to income of the bottom 40% that grew between 13 to 19 percent, which is still lower than the average (UNDP, 2019b).

As such, the figure clearly indicates Chad's lack of socio-economic and economic performance regarding its significance in human development. Especially in terms of education, health, and standard of living, which have not meaningfully improved over the years. Therefore, the figure suggests that the area of concentration of economic development in Chad needs to be considered. On the other hand, unemployment in Chad compared to the selected countries appears to be lower (Figure 1.3). However, in Figure 1.4, unemployment has been slightly fluctuating in an increasing trend over the years.

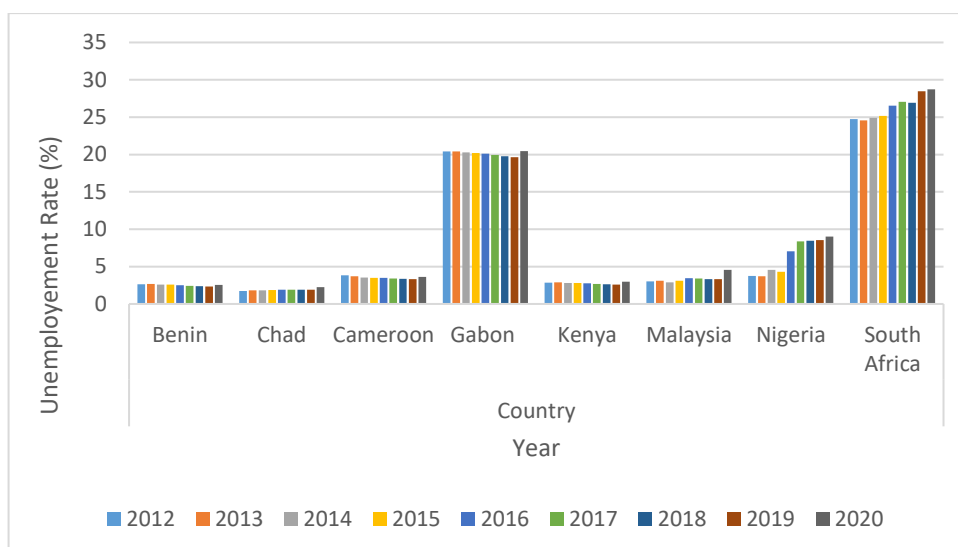


Figure 1.3: Selected countries unemployment rate (2012-2019)

(World Bank, 2020)

Among the selected SSA countries, South Africa and Gabon have the highest unemployment rate (with more than 20%) between the year 2012 and 2019. While Malaysia, Nigeria, and Cameroon have the second-highest unemployment rate between these periods. Cameroon and Malaysia have reached an average of 5% of unemployment as their highest rate within these periods, and Nigeria has nearly 10% of its maximum unemployment rate within the same periods (MecoMeter, 2019). It can be seen that the unemployment rate in developing countries such as South Africa, Gabon, Malaysia, and Nigeria is relatively high compared to the other selected countries, including Chad. Besides, Chad, Benin, and Kenya have an approximately higher unemployment rate, approximately 1.8% to 3% (African Development Bank Group, 2019). Similarly, although Chad has a lower rate of unemployment than the other countries illustrated in Figure 1.3, this does not significantly result in economic development in the country.

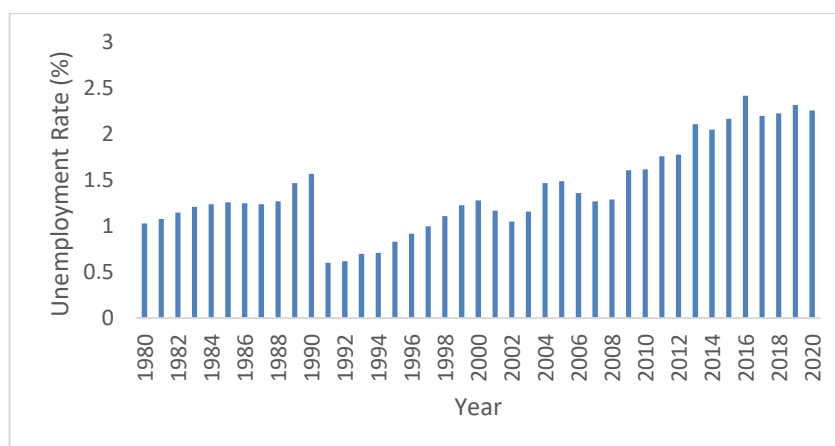


Figure 1.4: The unemployment rate in Chad (1980-2020)

(World Bank, 2020(b))

From the Figure 1.4, it is evident that the fluctuation of the unemployment rate in Chad during the first decade (1980-1990) is increasingly unstable (1.03% to 1.57%). Then in the following decade (1991-2000), the rate of unemployment in the country has been fluctuating in an increasing trend and did not change drastically for a more extended period where it roughly reached a higher rate of 2.42% in 2016 and then slightly reduced to 2.26% in 2020 (World Bank, 2020(b)). According to the World Bank (2020(b)), the youth unemployment rate increased to 1.16% in 2003 despite the country's adherence towards petroleum producer countries. Also, this fluctuation of unemployment shows that most of the Millennium Development Goals (MDG) on economic development were not met. As a result, many Chadians are still facing severe deprivation and a high level of unemployment at an alarming rate.

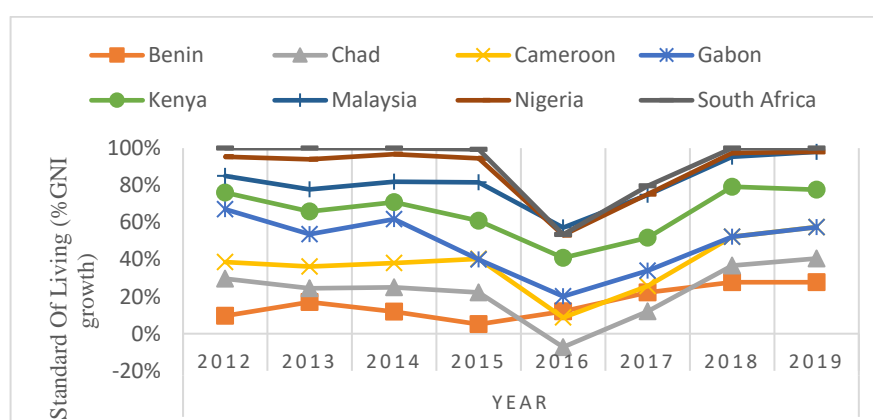


Figure 1.5: Standard of Living (% GNI growth) in selected countries

(World Development Indicators, 2020)

REFERENCES

- Abbass, K., Begum, H., Ferdous Alam, A. S. A., Awang, A. H., Abdelsalam, M. K., Egdair, I. M. M., & Wahid, R. (2022). Fresh Insight through a Keynesian Theory Approach to Investigate the Economic Impact of the COVID-19 Pandemic in Pakistan. *Sustainability (Switzerland)*, *14*(3).
<https://doi.org/10.3390/su14031054>
- Abonazel, M. R., & Elnabawy, N. (2020). Using the ARDL Bound Testing Approach to Study the Inflation Rate in Egypt. *Economic Consultant*, *31*(3), 24–41.
<https://doi.org/10.46224/ECOC.2020.3.2>
- Abou-Zaid, Ahmed and Hio, L. (2016). Inflation and Growth: An Estimate of the Threshold Level of Inflation in the U.S. *IOSR Journal of Economics and Finance*. *7*. 23-34.
- Abraham, T. W., & Ahmed, U. A. (2011). Economic Growth and Human Development Index in Nigeria : An Error Correction Model Approach. *International Journal of Administration and Development Studies, University of Maiduguri, Nigeria*, *2*(No. 1), 239–254.
- Acemoglu, D. (2007). *Introduction to Modern Economic Growth*. Massachusetts Institute of Technology.
- Acquah, J. W. (2016). Impact of Foreign Direct Investment on Domestic Investment: Evidence from Sub-Saharan Africa. *University of Lethbridge*, 1–95.
- Adegbite, E. O., & Ayadi, F. S. (2011). The role of foreign direct investment in economic development: A study of Nigeria. *World Journal of Entrepreneurship, Management and Sustainable Development*, *6*(1/2), 133–147.
<https://doi.org/10.1108/20425961201000011>
- Adegboye, F., & Adetiloye, K. A. (2015). *Foreign Direct Investment and Economic*

Development in Low Income African Countries. December.
<https://doi.org/10.5171/2015.875171>

Adegboye, F. B., Osabohien, R., Olokoyo, F. O., Matthew, O., & Adediran, O. (2020). Institutional quality, foreign direct investment, and economic development in sub-Saharan Africa. *Humanities and Social Sciences Communications*, 7(1), 7. <https://doi.org/10.1057/s41599-020-0529-x>

Adnan, H., Sadaf, M. S., Muhammad, D., & Irfan, L. (2010). Impact of Globalization on HDI (Human Development Index): Case Study of Pakistan, SSRN. *European Journal of Social Sciences*, 13(1), 46.

African Development Bank. (2015). *Republic of Chad: Country Strategy Paper 2015-2020*.

African Development Bank Group. (2019). *Africa Economic Outlook Africa Economic Outlook*.

Aghion, P., Akcigit, U., & Howitt, P. (2014). What Do We Learn From Schumpeterian Growth Theory? *Handbook of Economic Growth*, 2(1574–0684), 515–563. <https://doi.org/10.1016/B978-0-444-53540-5.00001-X>

Ahmed, H. F. T., & Mazlan, N. S. (2021). *The Impact of Interest Rate on Exchange Rate Within ASEAN Countries: Evidence from Linear and Nonlinear ARDL Frameworks*. 13(1), 7–34. <https://doi.org/10.1177/0974910120974798>

Akanbi, O. A. (2017). Impact of migration on economic growth and human development: Case of Sub-Saharan African countries. *International Journal of Social Economics*, 44(5), 683–695. <https://doi.org/10.1108/IJSE-07-2015-0190>

Akar, G., Saritas, T., & Kizilkaya, O. (2021). The Impact Of Human Development On Economic Growth: An Application On Transition Economies. *Business and Economics Research Journal*, 12(2), 307–318. <https://doi.org/10.20409/BERJ.2021.323>

Al-Hilani, H. (2012). HDI as a measure of human development: A better index than the income approach? *Journal of Business and Management*, 2(5), 24–28.

- Al-Wadi, M. (2016). Economic Growth and Unemployment Relationship: An Empirical Study for MENA Countries. *International Journal of Managerial Studies and Research (IJMSR)*, 4, 19–24. <https://doi.org/10.20431/2349-0349.0412003>
- Alalawneh, M., & Nessa, A. (2020). The impact of foreign direct investment on unemployment: Panel data approach. *Emerging Science Journal*, 4(4), 228–242. <https://doi.org/10.28991/esj-2020-01226>
- Alfawwaz, T. M., & Sawaie, K. (2020). The Relationship between Unemployment and Economic Growth in Jordan : An Empirical Study using the ARDL Approach. *International Journal of Innovation, Creativity and Change.*, 14(2), 1068–1083.
- Alkire, S., & Deneulin, S. (2009). Chapter 2: Introducing the Human Development and Capability Approach . In *An Introduction to the Human Development and Capability Approach* (2nd ed., Vol. 9, pp. 1–22).
- Alqaralleh, H. (2020). Stock return-inflation nexus; revisited evidence based on nonlinear ARDL. *Journal of Applied Economics*, 23(1), 66–74. <https://doi.org/10.1080/15140326.2019.1706828>
- Amusa, K., Monkam, N., & Viegi, N. (2016). *Foreign aid and Foreign direct investment in Sub-Saharan Africa : A panel data analysis*.
- Anand, S., & Ravallion, M. (1993). Human development in poor countries: on the role of private incomes and public services. *Journal of economic perspectives*, 7(1), 133-150.
- Anetor, F. O., Esho, E., & Verhoef, G. (2020). The impact of foreign direct investment, foreign aid and trade on poverty reduction: Evidence from Sub-Saharan African countries. *Cogent Economics & Finance*, 8(1), 1–13. <https://doi.org/10.1080/23322039.2020.1737347>
- Antwi, S., Mills, E. F. E. A., Mills, G. A., & Xicang, Z. (2013). Impact of foreign direct investment on economic growth: Empirical evidence from Ghana. *International Journal of Economics and Finance*, 3, No.1 (ISSN: 2225-8329), 18–25. <https://doi.org/10.5539/ijef.v7n2p178>

- Anyanwu, J. C. (2014). Factors Affecting Economic Growth in Africa: Are There any Lessons from China? *African Development Review*, 26(3), 468–493. <https://doi.org/10.1111/1467-8268.12105>.
- Appiah, M., Amoasi, R., & Frowne, D. (2019). Human Development and Its Effects on Economic Growth and Development. *International Research Journal of Business Studies*, 12(2), 101-109.
- Apinran, M. O., Taşpınar, N., & Gökmenoğlu, K. K. (2018). Impact of Foreign Direct Investment on Human Development Index in Nigeria. *Business and Economics Research Journal*, 9(1), 1–13. <https://doi.org/10.20409/berj.2018.90>.
- Araujo, R. A., Dávila-Fernández, M. J., & Moreira, H. N. (2019). Some new insights on the empirics of Goodwin's growth-cycle model. *Structural Change and Economic Dynamics*, 51, 42-54.
- Ardiyanto, F., Cutler, H., Braunstein, E., Vasudevan, R., & Koontz, S. (2012). *Foreign Direct Investment and Corruption*. 1–94.
- Aslanbeigui, N. (2008). *Pigou, Arthur Cecil (1877–1959)* (Steven N. Durlauf & Lawrence E. Blume (eds.); Second). The New Palgrave Dictionary of Economics. www.dictionaryofeconomics.com.
- Aslanbeigui, N., & Oakes, G. (2012). On Pigou's Theory of Economic Policy Analysis. *Open Edition Journals*, 2–2, 123–150. <https://doi.org/10.4000/OECONOMIA.1373>
- Aslanbeigui, N., & Oakes, G. (2018). Pigou, The Novel. *OEconomia*, 8–1, 93–105. <https://doi.org/10.4000/Oeconomia.2895>
- Asongu, S. A., & Odhiambo, N. M. (2019). Insurance policy thresholds for economic growth in Africa. *The European Journal of Development Research*, 1-18.
- Assa, J. (2020). Less is more: The implicit sustainability content of the human development index. *Elsevier*. <https://doi.org/10.13140/RG.2.2.21330.38088>
- Asterious, D., Audretsch, & Hall, S. G. (2007). *Applied Econometrics: A modern*

approach using Eviews and Microfit. Palgrave Macmillan.

- Awolusi, O. D., Adeyeye, O. P., & Pelsler, T. G. (2017). Foreign direct investment and economic growth in Africa: a comparative analysis. *International Journal of Sustainable Economy*, 9(3), 183. <https://doi.org/10.1504/ijse.2017.085062>
- Ayesha, J. (2013). Schumpeter's Theory of Economic Development | Economics. *Economics Discussion.Net*, 30(3).
- Aziz, R. N. A. R., & Amalina, A. (2017). Factor Affecting Gross Domestic Product (GDP) Growth in Malaysia. *International Journal of Real Estate Studies*, 11(4).
- Babajide, A. (2018). *Conflict and Economic Growth in Sub-Saharan Africa* [Loughborough University]. <https://dspace.lboro.ac.uk/2134/36256>.
- Bahmani-Oskooee, M., & Nayeri, M. M. (2017). *Policy Uncertainty and the Demand for Money in Australia: An Asymmetry Analysis*. 82846. <https://mpa.ub.uni-muenchen.de/82846/>
- Baiashvili, T., & Gattini, L. (2020). *Impact of FDI on economic growth: The role of country income levels and institutional strength* (QH-BK-20-002-EN-N). <https://doi.org/10.2867/846546>.
- Bangura, Y. (2019). Convergence Is Not Equality. *Development and Change*, 50(2), 394–409. <https://doi.org/10.1111/dech.12489>.
- Bank Central of African States. (2019). *Chad GDP Annual Growth Rate Data Chart Calendar Forecast*. Retrieved on March, 5, 2020 from <https://tradingeconomics.com/chad/gdp-growth-annual>
- Barreiro-Gen, M. (2019). *Discussing Approaches to Standard of Living*. 1–15. <https://doi.org/10.1007/978-3-319-71058-722-1>.
- Barreiro, I. C. (2006). *Human Development assessment through the Human-Scale Development approach: integrating different perspectives in the contribution to a Sustainable Human Development Theory*. Universitat Politècnica De Catalunya.

- Bartels, F. L., Eicher, M., Bachtrog, C., & Rezonja, G. (2009). Foreign direct investment in sub-Saharan Africa: Changing location-specific advantages as signals of competitiveness. *Developing Economies*, 47(3 SPEC. ISS.), 244–278.
- Bashir, A., Enoch, A. S., & Silas, L. B. (2022). The Manace of Unemployment In Nigeria: A comparative Analysis Among States. *Asian Journal of Advances Research*, 13(4), 19–23.
- Baumol, W. J. (2008). Welfare Economics and the Theory of the State. *The Encyclopedia of Public Choice*, 937–940. https://doi.org/10.1007/978-0-306-47828-4_214.
- Bazhal, I. (2016). *The theory of economic development of JA Schumpeter: Key features. No. 69883*.
- Bayar, Y., & Sasmaz, M.U. (2017). Impact of Foreign Direct Investments on Unemployment in Emerging Market Economies: A Co-Integration Analysis. *International Journal of Business and Economic Sciences Applied Research*, 10(3). <https://doi.org/10.1080/00036846.2014.993130>.
- Bhattarai, K. (2016). Research Methods for Economics and Related Studies. *University of Hull Business School, February 2015*.
- Belloumi, M. (2014). The relationship between trade, FDI and economic growth in Tunisia: An application of the autoregressive distributed lag model. *Economic Systems*, 38(2), 269–287. <https://doi.org/10.1016/j.ecosys.2013.09.002>
- Bence, J. R. (1995). Analysis of Short Time Series : Correcting for Autocorrelation Author (s): James R . Bence Analysis of Short Time Series : Correcting For. *Ecology*, 76(2), 628–639.
- Berg, V.D H. (2016). *Economic growth and development*. World Scientific Publishing Company 1-13.
- Blonigen, B. A. (2019). Foreign direct investment. *Foreign Direct Investment*, 12(5), 1–538. <https://doi.org/10.1142/11176>.
- Bob, R. (2011). *Economic development indicators*.

- Breusch, T. S., & Pagan, A. R. (1979). A Simple Test for Heteroscedasticity and Random Coefficient Variation. *Econometrica*, 47(5), 1287. <https://doi.org/10.2307/1911963>
- Broadberry, S., Campbell, B. M. S., Klein, A., Overton, M., & Van Leeuwen, B. (2015). British economic growth, 1270–1870. In *British Economic Growth, 1270–1870*. Cambridge University Press. <https://doi.org/10.1017/CBO9781107707603>
- Brown, R. L., Durbin, J., & Evans, J. M. (1975). Techniques for Testing the Constancy of Regression Relationships Over Time. *Journal of the Royal Statistical Society: Series B (Methodological)*, 37(2), 149–163. <https://doi.org/10.1111/j.2517-6161.1975.tb01532.x>
- Bundala, N. (2012). *Munich Personal RePEc Archive Economic Growth and Human Development; A Link Mechanism: An Empirical Approach*.
- Carbonell, B. J., & Werner, R. A. (2018). Does Foreign Direct Investment Generate Economic Growth? A New Empirical Approach Applied to Spain. *Economic Geography*, 94(4), 425–456. <https://doi.org/10.1080/00130095.2017.1393312>
- Carmignani, F., & Chowdhury, A. (2011). Four Scenarios of Development and the Role of Economic Policy. *Journal of Development Studies*, 47(3), 519–532.
- Campbell, D. (2017). Ian Kumeakawa: The First Serious Optimist: A.C. Pigou and the Birth of Welfare Economics. *Journal of Law and Society*, 44(4), 719–725. <https://doi.org/10.1111/JOLS.12066>.
- Capelli, C., & Vaggi, G. (2013). A better indicator of standards of living: The Gross National Disposable Income. *DEM Working Papers Series*, 62(December). <https://ideas.repec.org/p/pav/demwpp/demwp0062.html>
- Cardarelli, R., Elekdag, S., & Kose, M. A. (2009). *Capital Inflows: Macroeconomic Implications and Policy Responses*.
- Castells-Quintana, D., & Royuela, V. (2012). Investigaciones Regionales Asociación Española de Ciencia Regional Unemployment and long-run economic growth: The role of income inequality and urbanisation. *Network of Scientific Journals*

from Latin America, the Caribbean, Spain and Portugal, 24, 153–173.

- Chand, K., Tiwari, R., & Phuyal, M. (2018). Economic Growth and Unemployment Rate: An Empirical Study of Indian Economy. *PRAGATI: Journal of Indian Economy*, 4(02). <https://doi.org/10.17492/pragati.v4i02.11468>.
- Chaudhuri, S., Mukhopadhyay, U., Chaudhuri, S., & Mukhopadhyay, U. (2014). FDI and Unemployment. In *Foreign Direct Investment in Developing Countries* (pp. 161–209). Springer India. https://doi.org/10.1007/978-81-322-1898-2_7.
- Chikalipah, S., & Makina, D. (2019). Economic growth and human development: Evidence from Zambia. *Sustainable Development*, 27(6), 1023–1033. <https://doi.org/10.1002/sd.1953>.
- Chipman, J. S. (1966). A survey of the theory of international trade: Part 3, The modern theory. *Econometrica: Journal of the Econometric Society*, 18-76.
- Coleman, D. C. (1980). Mercantilism revisited. *The Historical Journal*, 23(4), 773-791.
- Conteh, K. (2021). Economic Growth and Unemployment: An Empirical Assessment of Okun's Law in the Case of Liberia. *SSRN Electronic Journal*, May. <https://doi.org/10.2139/ssrn.3864474>.
- Creswell. (2012). *Planning, Conducting, and Evaluating Quantitative and Qualitative Research (4 ed.)*. Boston: Pearson Education.
- Dabour, N. Md. (2000). The Role of Foreign Direct Investment (FDI) in Development and Growth in OIC Member Countries. *Journal of Economic Cooperation*, 21(3), 27–55.
- Dankumo, A. M., Ishak, S., Oluwaseyi, Z. A., & Onisanwa, I. D. (2019). Jurnal Ekonomi Malaysia . *Jurnal Ekonomi Malaysia*, 53(3), 153–161.
- Danquah, M., & Ouattara, B. (2014). Productivity Growth, Human Capital and Distance To Frontier in Sub-Saharan Africa. *Journal of Economic Development*, 39(4), 27–48.

- Dash, M. (2019). Testing the random walk hypothesis in the Indian stock market using ARIMA modelling. *Journal of Applied Management and Investments*, 8(2), 71-77.
- Dasgupta, P. (2008). Nature in Economics. *Environ Resource Econ*, 39, 1–7. <https://doi.org/10.1007/s10640-007-9178-4>
- Dayıoğlu, T., & Aydın, Y. (2020). Relationship between Economic Growth, Unemployment, Inflation and Current Account Balance: Theory and Case of Turkey. *Linear and Non-Linear Financial Econometrics -Theory and Practice*. <https://doi.org/10.5772/INTECHOPEN.93833>
- Dialga, I., & Ouoba, Y. (2022). How do extractive resources affect human development? Evidence from a panel data analysis. *Resources, Environment and Sustainability*, 7, 100046. <https://doi.org/10.1016/J.RESENV.2022.100046>.
- Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American statistical association*, 74(366a), 427-431.
- Dickey, D. A., Hasza, D. P., & Fuller, W. A. (1984). Testing for unit roots in seasonal time series. *Journal of the American statistical Association*, 79(386), 355-367.
- Dike, C. (2018). Effects of Foreign Direct Investment in Sub-Saharan Africa Economic Growth: Evidence from Panel Data Analysis. *International Journal of Economics and Financial Issues*, 8(2), 255–261.
- Ebaidalla, M. (2016). Analysis of youth unemployment in Sub-Saharan Africa: determinants and possible ways forward. *African Journal of Economic and Sustainable Development*, 5(4), 317. <https://doi.org/10.1504/AJESD.2016.079435>
- Edenhofer, O., Franks, M., & Kalkuhl, M. (2021). Pigou in the 21st Century: a tribute on the occasion of the 100th anniversary of the publication of *The Economics of Welfare*. *International Tax and Public Finance*, 28(5), 1090–1121. <https://doi.org/10.1007/S10797-020-09653-Y>
- Edgeworth, F. Y., & Pigou, A. C. (1913). *Wealth and Welfare* by A.C. Pigou.

Economic Journal, 23(89), 62–70. <https://doi.org/10.2307/2222210>

- Eduardo, O. A. (2014). Welfare economics, welfare state and the real economy. *Aestimatio: The IEB International Journal of Finance*, 8, 160–183.
- Efrianti, R., Marwa, T., Tarmizi, N., & Yuliana, S. (2018). Growth, Unemployment And Its Implication On Poverty: Empirical Study In Districts/Cities Of South Sumatera Province. *Eurasian Journal of Economics and Finance*, 6(4), 27–37.
- Ejুবekpokpo, S. A. (2016). *the Impact of Institutional Quality on Human Development in Sub-Sahara African Countries*. Universiti Utara Malaysia (UUM): Ph.D. Thesis.
- Ekholm, C. (2017). *Foreign Direct Investment's Effect on Economic Growth in Developing Countries: Cross-Border Mergers and Acquisitions versus Greenfield Investments*.
- Elkomy, S., Ingham, H., & Read, R. (2016). Economic and Political Determinants of the Effects of FDI on Growth in Transition and Developing Countries. *Thunderbird International Business Review*, 58(4), 347–362. <https://doi.org/10.1002/tie.21785>.
- Elryah, Y., & Qian, N. Q. (2015). On the Causality Relationship of Economic Growth and Domestic Savings in the Asean Economies: A Co-Integration Analysis. *i-Manager's Journal on Management*, 9(4), 26.
- Emami, L., Farrokh. (2017). Schumpeter's Theory of Economic Development: A Study of the Creative Destruction and Entrepreneurship Effects on the Economic Growth. *SSRN Electronic Journal*.
- Engle, R. F., & Granger, C. W. (1987). Co-integration and error correction: representation, estimation, and testing. *Econometrica: journal of the Econometric Society*, 251-276.
- Erreygers, G. (2019). Lewis and Kuznets on Economic Growth and Income Inequality. In *Including a Symposium on 50 Years of the Union for Radical Political Economics* (pp. 181-186). Emerald Publishing Limited.

- Fagan, R., Dhamayanthi. A., Hafinaz, H., Binti., H. (2016). Factors affecting Foreign Direct Investment (FDI) in Russian Federation. *Imperial Journal of Interdisciplinary Research (IJIR)*, Vol-2, Issue-9, 2016 (ISSN: 2454-1362).
- Fahad, H. S. (2014). Foreign direct investment and technology transfer: the case of the uae. *PQDT - UK & Ireland*.
- Feldman et al. (2014). *Economic Development: A Definition and Model for Investment from the George Washington Institute for Public Policy. Our UNC colleagues Alex Graddy-Reed and Nichola Lowe deserve special mention. Input from EDA's Office of Regional Affairs and Performance a.* 1–25.
- Feldman, M., and Storper, M. (2016). *Economic Growth and Economic Development: Geographic Dimensions, Definition & Disparities*.
- Fingar, C. (2015). Foreign Direct Investment in Africa: Performance and Potential. *Financial Times*, September, 1–30.
- Fouthe, D. C., & Ndedi, A. (2017). Analyzing Factors Affecting Economic Growth within CEMAC Countries. *SSRN Electronic Journal*.
- Freeman, C. (2013). *Economics of industrial innovation*. Routledge.
- Fu, R., Jin, G., Chen, J., & Ye, Y. (2021). The effects of poverty alleviation investment on carbon emissions in China based on the multiregional input–output model. *Technological Forecasting and Social Change, Elsevier*,. <https://doi.org/10.1016/j.techfore.2020.120344>
- Furhmann, R., Walters, T., & Eichler, R. (2022). *Okun's Law: Economic Growth and Unemployment*. Investopedia. Retrieved on May, 21, from <https://www.investopedia.com/articles/economics/12/okuns-law.asp>
- Gamal, A. A. M. (2016). *the Econometric Analysis of the Undergrunde Conomy in Selected Gulf Cooperation Council (Gcc) Countries : Saudi Arabia , Qatar , the United Arab Emirates , Kuwait and Oman*. Universiti Utara Malaysia (UUM): Ph.D. Thesis.
- Ganama, M. Gueme, Maimunah, B. Ali, Khalil. K, & Khadar, A. Dirie. (2020, April).

Factors Affecting Economic Development in Chad: A Review Paper. (SBN: 978-0-9998551-4-0), 4151–4163

Garland, G. M., & Morrison, J. M. (2019). Economic growth and progress: A paradigmatic conflation.

Georgescu, M. A., & Herman, E. (2019). Productive employment for inclusive and sustainable development in European Union countries: A multivariate analysis. *Sustainability (Switzerland)*, *11*(6). <https://doi.org/10.3390/su11061771>

Ghazouani, T. (2021). Impact of FDI inflow, crude oil prices, and economic growth on CO2 emission in Tunisia: Symmetric and asymmetric analysis through ARDL and NARDL approach. *Environmental Economics*, *12*(1), 1–14. [https://doi.org/10.21511/ee.12\(1\).2021.01](https://doi.org/10.21511/ee.12(1).2021.01)

Gichamo, T. Z. (2012). *Determinants of Foreign Direct Investment Inflows to Sub-Saharan Africa: a panel data analysis.* 2012.

Godfrey, L. G. (1978). Testing for Higher Order Serial Correlation in Regression Equations when the Regressors Include Lagged Dependent Variables. *Econometrica*, *46*(6), 1303. <https://doi.org/10.2307/1913830>.

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>.

Gopalakrishna, B.V., & Rao, J (2012). Economic Growth & Human Development: The Experience of Indian States . *Indian Journal of Industrial Relations*, *47*(4), 634–644.

Granger, C. W. (1969). Investigating causal relations by econometric models and cross-spectral methods. *Econometrica: journal of the Econometric Society*, 424-438.

GrasjÄ, U., & Arvemo, T. (2011). Different measures of economic growth lead to different conclusions? *ERSA Conference Papers*.

Gregory, A. W., & Hansen, B. E. (1996). Residual-based tests for cointegration in

models with regime shifts. *Journal of econometrics*, 70(1), 99-126.

Grzega, U. (2018). Macroeconomic determinants of the standard of living—theoretical considerations. *Optimum. Economic Studies*, 92(2), 191-205.

Gui-diby, S. L., Combes, J., & Renard, M. (2016). *Essays on the Impact of Foreign Direct Investments in Africa Essays on the Impact of Foreign Direct Investments in Africa par Steve Loris GUI-DIBY*.

Gujrati, R. (2015). Microeconomic and Macroeconomic: Issues and Effects on Economic Growth. *International Journal of Recent Scientific Research*, 6(7), 5310–5317. <http://recentscientific.com/sites/default/files/3012.pdf>.

Hagemann, H. (2009). Solow's 1956 contribution in the context of the Harrod-Domar model. *History of Political Economy*, 41(Suppl_1), 67-87.

Hall, J., Levendis, J., & Scarciuffolo, A. R. (2019). *The Efficient Corruption Hypothesis and the Dynamics between Economic Freedom, Corruption, and National Income Digital Commons Citation*. https://researchrepository.wvu.edu/econ_working-papers

Hall, A. (1994). Testing for a unit root in time series with pretest data-based model selection. *Journal of Business & Economic Statistics*, 12(4), 461-470.

Haller, A. (2012). *Concepts of Economic Growth and Development. Challenges of Crisis and of Knowledge*. 15(1), 66–71.

Hashmi, S. M., Khushik, A. G., Gila, M. A., & Yongliang, Z. (2021). The Impact of GDP and Its Expenditure Components on Unemployment Within BRICS Countries: Evidence of Okun's Law From Aggregate and Disaggregated Approaches. *Sage Journal*, 1–11.

Hayat, R., & Kalf, J. (2015). *Sub-Saharan Africa: struggling, but still growing - RaboResearch*.

Hendarso, Y., Suleman, Z., Supriyanto, S., & Ali, M. (2019). Effect of the Moderation of Economic Institution on Local Economic Development. In *Social and Humaniora Research Symposium (SoRes 2018)*. Atlantis Press.

- Hjazeen, H., Seraj, M., & Ozdeser, H. (2021). The nexus between the economic growth and unemployment in Jordan. *Future Business Journal* 2021 7:1, 7(1), 1–8. <https://doi.org/10.1186/S43093-021-00088-3>.
- Ibrahim, M., Adam, I. O., & Sare, Y. A. (2019). Networking for foreign direct investment in Africa: How important are ICT environment and financial sector development? *Journal of Economic Integration*, 34(2), 346–369. <https://doi.org/10.11130/jei.2019.34.2.346>.
- Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. Princeton university press.
- International Labor Organization. (2015). *Unemployment rate*. [http://www.ilo.org/ilostat-files/Documents/LFEP Methodology 2015.pdf](http://www.ilo.org/ilostat-files/Documents/LFEP%20Methodology%202015.pdf)
- International Monetary Fund. (2014). *Government Finance Statistics Manual*. www.elibrary.imf.org
- International Monetary Fund. (2020). *Sub-Saharan Africa Regional Economic Outlook: A Cautious Reopening*. IMF. <https://www.imf.org/en/Publications/REO/SSA/Issues/2020/06/29/sreo0629>
- International Trade Administration (ITA). (2019). *Chad - Market Overview*. export.gov.
- Irpan, I. H., Saad, R. M, Shaari Md. N, A. H., & Ibrahim, N. (2016). Impact of Foreign Direct Investment on the Unemployment Rate in Malaysia. *Journal of Physics: Conference Series*, 710(1), 012028.
- Islam, S., & Clarke, M. (2002). The Relationship between Economic Development and Social Welfare: A New Adjusted GDP Measure of Welfare. *Social Indicators Research*, 57(2), 201-228.
- Ivic, M. M. (2015). Economic Growth And Development. In *JPMNT) Journal of Process Management-New Technologies, International* (Vol. 3, Issue 1). www.japmnt.com
- Jack, B. (2022). Unemployment And Economic Growth: The Okun's Law And Its

Implications: For Nigeria. *Journal Of Contemporary Research In Economics And Development Studies (JCREDS)*, 1(1), 60–70.

Jaiblai, P., & Shenai, V. (2019). The determinants of FDI in sub-Saharan economies: A study of data from 1990–2017. *International Journal of Financial Studies*, 7(3). <https://doi.org/10.3390/ijfs7030043>.

Johansen, S. (1988). Statistical analysis of cointegration vectors. *Journal of economic dynamics and control*, 12(2-3), 231-254.

Johansen, S., & Juselius, K. (1990). Maximum likelihood estimation and inference on cointegration—with applications to the demand for money. *Oxford Bulletin of Economics and statistics*, 52(2), 169-210.

Jones, C. I. (2016). The Facts of Economic Growth. In *Handbook of Macroeconomics* (Vol. 2, pp. 3–69). <https://doi.org/10.1016/bs.hesmac.2016.03.002>.

Joshua, U., Babatunde, D., & Sarkodie, S. A. (2021). Sustaining Economic Growth in Sub-Saharan Africa: Do FDI Inflows and External Debt Count? *Journal of Risk and Financial Management*, 14(4), 146. <https://doi.org/10.3390/jrfm14040146>.

Kadiatou, M. M. N. (2017). The impact of Foreign Direct Investment on Economic Growth in Niger. *IOSR Journal of Economics and Finance*, 08(02), 28–33.

Kamalu, K., & Hakimah, W. I. (2022). The Influence of Institutional Quality on Human Development: Evidence from Developing Countries (Pengaruh Kualiti Institusi ke atas Pembangunan Manusia: Bukti dari Negara-negara Membangun). *Jurnal Ekonomi Malaysia*, 56(1), 1–13. <https://doi.org/10.17576/JEM-2022-5601-07>

Kanayo, P. (2022). External Financing and Standard of Living of Average Nigerian Citizen: Disaggregated Analysis. *International Journal of Innovative Finance and Economics Research*, 10(1), 17–28. www.seahipaj.org

Kara, O. (2022). *Economic Complexity, Human Development, And Innovation Capability*. Middle East Technical University.

Kariuki, C. W. (2013). *The Determinants of Foreign Direct Investment in African*

Countries (Vol. 43, Issue 4). Curtin University.

Khan, I. H. (2012). "From growth to sustainable development in developing countries: a conceptual framework". In *Environmental Economics* (Vol. 3, Issue 1).

Khan, M. K., Teng, J. Z., & Khan, M. I. (2019). Asymmetric impact of oil prices on stock returns in Shanghai stock exchange: Evidence from asymmetric ARDL model. *PLoS ONE Journal*, 14(6), 1–11.

<https://doi.org/10.1371/JOURNAL.PONE.0218289>

Khan, M. K., Teng, J. Z., Khan, M. I., & Khan, M. F. (2021). Stock market reaction to macroeconomic variables: An assessment with dynamic autoregressive distributed lag simulations. *International Journal of Finance and Economics*, 1–13. <https://doi.org/10.1002/ijfe.2543>

Khan, S., & Yahong, W. (2021). Symmetric and Asymmetric Impact of Poverty, Income Inequality, and Population on Carbon Emission in Pakistan: New Evidence From ARDL and NARDL Co-Integration. *Frontiers in Environmental Science*. <https://doi.org/10.3389/fenvs.2021.666362>

Kigali. (2012). "Summary of the Report Presented at the Closing of Gacaca Courts Activities" Republic of Rwanda: National Service of Gacaca Courts. *The Quarterly Journal of Economics*, 133(2), 553–609. <https://doi.org/10.1093/QJE>

Kirikkaleli, D., Adeshola, I., Adebayo, T. S., & Awosusi, A. A. (2021). Do foreign aid triggers economic growth in Chad? A time series analysis. *Future Business Journal*, 7(1), 1–17. <https://doi.org/10.1186/s43093-021-00063-y>

Knoema.com. (2019). *Human Development Report, 2019 Statistical Update*. Retrieved on June, 15, 2020, from <https://knoema.com/HDREPT2019/human-development-report-2019-statistical-update>

Knoema Corporation. (2018). *Chad Net FDI inflows (% of GDP), 1960-2018 - knoema.com*. Retrieved on June, 17, 2020, from <https://knoema.com/atlas/Chad/topics/Economy/Balance-of-Payments-Capital-and-financial-account/Net-FDI-inflows-percent-of-GDP>

- Kocaarslan, B., & Soytaş, U. (2019). Asymmetric pass-through between oil prices and the stock prices of clean energy firms: New evidence from a nonlinear analysis. *Energy Reports*, 5, 117–125. <https://doi.org/10.1016/J.EGYR.2019.01.002>
- Kounou, M. (2020). Impact of Foreign Direct Investment on Human Development Index in South Africa. *International Finance and Banking*, 7(1), 58. <https://doi.org/10.5296/ifb.v7i1.15582>
- Kónya, I. (2018). The Neoclassical Growth Model. In *Economic Growth in Small Open Economies* (pp. 83-103). Palgrave Macmillan, Cham.
- Kozlovskiy, S., Nikolenko, L., Peresada, O., Pokhyliuk, O., Yatchuk, O., Bolgarova, N., & Kulhanik, O. (2020). Estimation level of public welfare on the basis of methods of intellectual analysis. *Global Journal of Environmental Science and Management (GJESM)*, 6(3), 355–372. 10.22034/gjesm.2020.03.06
- KPMG Report. (2015). *What influences foreign direct investment into Africa-Insights into African Capital Markets*. Retrieved on May, 14, 2019, from www.kpmg.com/africa
- Kreishan. (2011). Economic Growth and Unemployment: An Empirical Analysis. *Journal of Social Sciences*, 7(2), 228–231. 10.3844/jssp.2011.228.231.
- Kristoufek, L., Janda, K., & Zilberman, D. (2014). Price transmission between biofuels, fuels, and food commodities. *Biofuels, Bioproducts and Biorefining*, 8(3), 362-373.
- Kubiszewski, I., Costanza, R., Franco, C., Lawn, P., Talberth, J., Jackson, T., & Aylmer, C. (2013). Beyond GDP: Measuring and achieving global genuine progress. *Ecological economics*, 93, 57-68.
- Kunte, S., & Damani, O. (2016). Exploring Harrod Domar and Solow Models of Economic Growth. *34th International Conference of the System Dynamics Society*.
- Lashitew, A. A. (2014). *Resource misallocation and aggregate productivity*. University of Groningen.

- Laura, A., and J. Chauvin. (2017). Foreign Direct Investment, Finance, and Economic Development. In Mariana Spatareanu Francisco Rivera Batiz John Simon & Katelyn Barry (Eds.), *Chapter for Encyclopedia of International Economics and Global Trade.* , Harvard Business School.
- Lee, J. (2000). On the end-point issue in unit root tests in the presence of a structural break. *Economics Letters*, 68(1), 7–11. [https://doi.org/10.1016/S0165-1765\(00\)00213-5](https://doi.org/10.1016/S0165-1765(00)00213-5).
- Lee, J., & Strazicich, M. C. (2003). Minimum Lagrange multiplier unit root test with two structural breaks. *Review of economics and statistics*, 85(4), 1082-1089.
- Lee, C., & Loyd, P. (2018). *A Review of the Recent Literature on the Institutional Economics Analysis of the Long-Run Performance of Nations.*
- Lekana, H. C., Ikiemi, C. B. S. (2021). Effect of Energy Consumption on Human Development in the Countries of the Economic and Monetary Community of Central Africa (EMCCA). *Theoretical Economics Letters*, 11(3), 404–421. <https://doi.org/10.4236/TEL.2021.113027>
- Levine, L. (2013). *Economic Growth and the Unemployment Rate.*
- Ling, T. Y., Hassan, A., & Shaari, M. N. (2013). Testing for Unit Roots and Structural Breaks: Evidence from Selected ASEAN Macroeconomic Time Series . *International Journal of Trade, Economics and Finance* , 4(4), 230–237.
- Lingens, J. (2003). The impact of a unionised labour market in a Schumpeterian growth model. *Labour Economics*, 10(1), 91-104.
- Loots, E., & Kabundi, A. (2017). Foreign direct investment to Africa: trends, dynamics and challenges. *South African Journal of Economic and Management Sciences*, 15(2), 128–141. <https://doi.org/10.4102/sajems.v15i2.148>
- Maboloc, C. R. B. (2008). *The Concept of Human Development: A Comparative Study of Amartya Sen and Martha Nussbaum.* Linköpings Universitet .
- Mackie, E. (2012). Understanding Poverty: the human development approach. *E-International Relations*, 1–6.

- Madzik, P., Piteková, J., & Daňková, A. (2015). Standard of Living as a Factor of Countries' Competitiveness. *Procedia Economics and Finance*, 34, 500–507. [10.1016/S2212-5671\(15\)01660-3](https://doi.org/10.1016/S2212-5671(15)01660-3)
- Mahembe, E., & Odhiambo, N. M. (2014). Foreign Direct Investment And Economic Growth: A Theoretical Framework. *Journal of Governance and Regulation*, 3(2), 63–70.
- Mahmoud A. Al-Habees, M. A. R. (2012). Unemployment and Labor Market Issues in Algeria. *World Applied Scineces Journal*, 18(5), 673–680. <https://doi.org/10.5829/idosi.wasj.2012.18.05.16712>
- Maqin, R. A., & Sidharta, I. (2017). The relationship of economic growth with human development and electricity consumption in Indonesia. *International Journal of Energy Economics and Policy*, 7(3), 201–207.
- Masipa, T. S. (2018). The relationship between foreign direct investment and economic growth in South Africa: Vector error correction analysis. *Acta Commercii*, 18(1). <https://doi.org/10.4102/ac.v18i1.466>
- Matekenya, W., Moyo, C., & Jeke, L. (2021). Financial inclusion and human development: Evidence from Sub-Saharan Africa. *Development Southern Africa*, 38(5), 683–700. [10.1080/0376835X.2020.1799760](https://doi.org/10.1080/0376835X.2020.1799760)
- Mayom, D. A. (2015). *The Impact of Foreign Direct Investment on Labor Market Measures: Evidence from Sub-Saharan Africa* [The University of San Francisco]. <https://repository.usfca.edu/thes/144>
- Mbang, O. M. (2022). Foreign Direct Investment and Human Development in Cameroon. *American Journal of Industrial and Business Management*, 12(1), 58–72. <https://doi.org/10.4236/AJIBM.2022.121005>
- McDowall, D., McCleary, R., & Bartos, B. J. (2019). *Interrupted time series analysis*. Oxford University Press.
- MecoMeter. (2019). *Unemployment comparison- Chad*. <http://mecometer.com/whats/chad/unemployment/>

- Meftah, S., & Nassour, A. (2019). Macroeconomic Variables and Foreign Direct Investment Inflows in Turkey. *Signifikan: Jurnal Ilmu Ekonomi*, 8(2). <https://doi.org/10.15408/sjie.v8i2.10560>.
- Mehdi, B.S, Marilyne, H. B, Zitouna, H. (2015). *The Role of Sectoral FDI in Promoting Agricultural Production and Improving Food Security*, 145.
- Mengistu, B., & Adams, S. (2007). Foreign direct investment, governance and economic development in developing countries. *Journal of social political and economic studies*, 32(2), 223.
- Menegaki, A. N. (2019). The ARDL Method in the Energy-Growth Nexus Field; Best Implementation Strategies. *Economies* , 7(4), 114.
10.3390/economies7040105
- Metcalf, J. S. (2009). *Technology and economic theory*. *Cambridge Journal of Economics*, 34(1), 153–171.
- Meyer, D., Masehla, T.M., Kot, and Sebastian. (2017). The relationship between economic growth and economic development: A regional assessment in south africa. *Journal of Advanced Research in Law and Economics*. 8. 1377-1385.
- Michael, E. O., Emeka, A., & Emmanuel, E. N. (2016). The Relationship between Unemployment and Economic Growth in Nigeria : Granger Causality Approach. *Research Journal of Finance and Accounting*, 7(24), 153–162. www.iiste.org
- Misini, S. (2017). The Effect Of Economic Growth In Relation To Unemployment. *Journal of Economics and Economic Education Research*, 18(2).
- Mkombe, D., Tufa, A. H., Alene, A. D., Manda, J., Feleke, S., Abdoulaye, T., & Manyong, V. (2021). The effects of foreign direct investment on youth unemployment in the Southern African Development Community. *Development Southern Africa*, 38(6), 863–878.
<https://doi.org/10.1080/0376835X.2020.1796598>
- Moran, T. (1998). *FDI in Developing Countries and Economies in Transition: Opportunities, Dangers, and New Challenges*.

- Mpeta, B., Fourie, J., & Inwood, K. (2018). Black living standards in South Africa before democracy: New evidence from height. *South African Journal of Science*, 114(1–2). <https://doi.org/10.17159/sajs.2018/20170052>
- Mukherjee, S., & Chakraborty, C. (2010). *Is there any relationship between Economic Growth and Human Development? Evidence from Indian States*.
- Muminov, N., Kim, T., Egamberdiyev, F., & Ambartsumyan, A. (2020). The Ways of Improvement Of Living Standards. *International Journal of Psychosocial Rehabilitation*, 24(04), 1965–1980. <https://doi.org/10.37200/IJPR/V24I4/PR201305>
- Musa, Y., Usman Umar, & Zoramawa, A. B. (2014). Relationship between money supply and government revenues in Nigeria. *CBN Journal of Applied Statistics*, 5(2), 116–136. <http://hdl.handle.net/10419/144784>
- Mutascu, M., & Sokic, A. (2021). Okun's law in the US: New insights in time and frequency. *The Quarterly Review of Economics and Finance*, 82, 207–222. <https://doi.org/10.1016/J.QREF.2021.09.008>
- Nagel, K. (2015). Relationships between unemployment and economic growth-the review (results) of the theoretical and empirical research. *Journal of Economics and Management*, 20(2).
- National Institute for Statistics, E. and D. S. (2021). *INSEED-TCHAD | Base de Données*. INSEED. Retrieved on January, 10, 2021, from <https://www.inseed.td/index.php#>
- Nations Encyclopedia. (2019). *Chad Overview of economy, Information about Overview of economy in Chad*. Retrieved on January, 5, 2020, from <https://www.nationsencyclopedia.com/economies/Africa/Chad-OVERVIEW-OF-ECONOMY.html#ixzz5td5W8w2R>
- Nations Online Project. (2014). *Political and Administrative Map of Chad*. Retrieved on January, 4, 19, from http://www.nationsonline.org/oneworld/map/malaysia_map.htm

- Nawaz, K., Lahiani, A., & Roubaud, D. (2019). Natural resources as blessings and finance-growth nexus: A bootstrap ARDL approach in an emerging economy. *Resources Policy*, *60*, 277-287.
- Neamțu, D.-M., & Ciobanu, O.-G. (2014). Human Development, Premise For Socio-Economic Development. *Global Journal of Commerce and Management Perspective*, *3*(4), 32–35.
- Newey, W., & KD West. (1987). Hypothesis testing with efficient method of moments estimation. *JSTOR International Economic Review*, *28*(3), 777–787.
- Ngo, T. D., Kashani, A., Imbalzano, G., Nguyen, K. T., & Hui, D. (2018). Additive manufacturing (3D printing): A review of materials, methods, applications and challenges. *Composites Part B: Engineering*, *143*, 172-196.
- Nguyen, H. T. T., Van Nguyen, C., & Van Nguyen, C. (2020). The Effect of Economic Growth and Urbanization on Poverty Reduction in Vietnam. *The Journal of Asian Finance, Economics and Business*, *7*(7), 229–239. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO7.229>
- Nkoro, E., & Uko, A. K. (2016). Autoregressive Distributed Lag (ARDL) cointegration technique: application and interpretation. *Journal of Statistical and Econometric Methods*, *5*(4), 63–91. <https://doi.org/10.1002/jae.616>
- Nordea Trade. (2019). *Foreign direct investment (FDI) in Chad* (pp. 3–15). <https://doi.org/10.18356/df3b8ad0-en>
- Nour, H. A. (2015). *The Role of Foreign Direct Investment in Developing Chadian Economy*. Universiti Utara Malaysia (UUM): Mater Thesis
- Nour, H. A., & Rahman, M. F. B. A. (2017). *The impacts of refugee's crisis to chadian labour market: a conceptual analysis*. *6*(2), 2289–1552.
- Ntuli, M. & Kwenda, P. (2020). Gender Gaps in Employment and Wages in Sub-Saharan Africa: A Review. In *Women and Sustainable Human Development* (pp. 183–203). Springer International Publishing. https://doi.org/10.1007/978-3-030-14935-2_11

- Obasanmi, J. (2022). Causal Relationship between Unemployment and Economic Growth in Nigeria. *SAU Journal of Management and Social Sciences*, 7(1), 235–246.
- OECD. (2008). *OECD Benchmark Definition of Foreign Direct Investment 2008*. Retrieved on January, 8, 2020, from OECD. 10.1787/9789264045743-en
- OECD. (2018). *OECD International Direct Investment Statistics 2018*. OECD. <https://doi.org/10.1787/bb55ccaf-en>
- Ogunyinka, E. K., & Tang, B. (2013). The Role of Econometrics Data Analysis Method in the Social Sciences (Education) Research. *Journal of Education and Practice*, 4(7), 159–168.
- Ojima, D. (2019). Unemployment And Economic Development In Nigeria (1980-2017). *Advances in Social Sciences Research Journal*, 6(1), 110–121. <https://doi.org/10.14738/assrj.61.5827>
- Oluwapemi, O. O. (2017). *Impact of Macroeconomic Factors on Economic Growth, Agricultural Output and Export in Nigeria*. Universiti Utara Malaysia (UUM): Ph.D. Thesis.
- Omar, D. A. (2020). Inter-relationship between economic development and human development-analytical study of selected Arab countries. *Utopia and Latin American Praxis*, 25(1), 85–95. 10.5281/Zenodo.3766122.
- Owusu-Antwi, G., Antwi, J., & Poku, P. K. (2013). Foreign direct investment: A journey to economic growth in Ghana-empirical evidence. *International Business & Economics Research Journal (IBER)*, 12(5), 573-584.
- Palát, M. (2011). The impact of foreign direct investment on unemployment in Japan. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 59(7), 261–266. 10.11118/actaun201159070261
- Pasara, M. T., & Garidzirai, R. (2020). Causality Effects among Gross Capital Formation, Unemployment and Economic Growth in South Africa. *MDPI Economies* , 8(2), 39. 10.3390/Economies8020026

- Pasara, M. T., & Garidzirai, R. (2020b). Causality Effects among Gross Capital Formation, Unemployment and Economic Growth in South Africa. *MDPI Economies*, 8(2), 39. 10.3390/Economies8020026
- Patmawati, I., & Maimunah, A. (2013). *Foreign Direct Investment Affluences in Iskandar Malaysia*.
- Pfarrer, M. D., & Smith, K. G. (2015). Creative Destruction. *Wiley Encyclopedia of Management*, 1-3.
- Perron, P. (1989). The Great Crash, the Oil Price Shock, and the Unit Root Hypothesis. *Econometrica*, 57(6), 1361. <https://doi.org/10.2307/1913712>.
- Perron, P. (1997). Further evidence on breaking trend functions in macroeconomic variables. *Journal of econometrics*, 80(2), 355-385.
- Pesaran, M. H., Shin, Y., Pesaran, M., & Shin, Y. (1996). Cointegration and speed of convergence to equilibrium. *Journal of Econometrics*, 71(1-2), 117-143.
- Pesaran, M. H., & Shin, Y. (1999). An autoregressive distributed lag modelling approach to cointegration analysis. In *Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium*. (Issue March 3-5, 1995, pp. 1-31). Cambridge University Press.
- Pesaran, M. H., Shin, Y., & Smith, R. J. (2000). Structural analysis of vector error correction models with exogenous I (1) variables. *Journal of Econometrics*, 97(2), 293-343.
- Pesaran, M. Hashem, Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16(3), 289-326. <https://doi.org/10.1002/jae.616>
- Pesaran, M. H., Smith, R. P., Yamagata, T., & Hvozdnyk, L. (2009). Pairwise tests of purchasing power parity. *Econometric Reviews*, 28(6), 495-521.
- Pettinger, T. (2017). *Key measures of economic performance | Economics Help*. Retrieved on January, 3, 2020.

- Phiri, J., Malec, K., Majune, S. K., Appiah-Kubi, S. N. K., Maitah, M., Maitah, K., Gebeltová, Z., & Abdullahi, K. T. (2020). Agriculture as a determinant of Zambian economic sustainability. *Sustainability (Switzerland)*, *12*(11), 4559. 10.3390/su12114559
- Phong, L. H., Van, D. T. B., & Bao, H. H. G. (2019). A nonlinear autoregressive distributed lag (Nardl) analysis on the determinants of vietnam's stock market. *Studies in Computational Intelligence*, *809*, 363–376. 10.1007/978-3-030-04200-4_27.
- Pianta, M., & Tancioni, M. (2008). Innovations, wages, and profits. *Journal of Post Keynesian Economics*, *31*(1), 101-123.
- Plecher, H. (2020a). *Chad - gross domestic product (GDP) per capita 1984-2024* . Statista. Retrieved on January 4, 2020.
- Plecher, H. (2020b). *Chad - gross domestic product (GDP) growth rate 2009-2021 / Statista*. Statista. Retrieved on January 10, 2020.
- Podgórska, J., & Leśniowska-Gontarz, M. (2016). *Analysis of the Relationship between Unemployment and GDP in Poland and Spain in the Years 2002-2015*.
- Pungki, A. P. (2018). The Impact Of Unemployment Rate, Labor Force, Capital, Inflation Rate, And Government Expenditure On Economic Growth In Indonesia. *American Journal of Engineering Research (AJER)*, *7*, 109–119. www.ajer.org
- Qamruzzaman, M., & Karim, S. (2020). Nexus between Economic Volatility, Trade Openness and FDI: An Application of ARDL, NARDL and Asymmetric Causality. *Asian Economic and Financial Review*, *10*(7), 790–807. 10.18488/journal.aefr.2020.107.790.807.
- Qazi, W., Raza, S. A., & Sharif, A. (2017). Higher Education Development and Unemployment in Pakistan: Evidence from Structural Break Testing. *Global Business Review*, *18*(5), 1089–1110. 10.1177/0972150917710344.
- Rahman, R. A., Raja, M. A., & Ryan, C. (2020). The Impact of Human Development on Economic Growth: A Panel Data Approach. *SSRN Electronic Journal*.

<https://doi.org/10.2139/ssrn.3526909>.

- Rai, T. (2016). *Impact of Economic Growth on Human Development: Case study of Nepal*.
- Ramezan, C., A Warner, T., and E Maxwell, A. (2019). Evaluation of sampling and cross-validation tuning strategies for regional-scale machine learning classification. *Remote Sensing*, 11(2), 185.
- Randal, E., Shaw, C., Woodward, A., Howden-Chapman, P., Macmillan, A., Hosking, J., Chapman, R., Waa, A. M., & Keall, M. (2020). Fairness in Transport Policy: A New Approach to Applying Distributive Justice Theories. *Sustainability*, 12(23), 1–23. 10.3390/SU122310102
- Ranis, G., Stewart, F., & Ramirez, A. (2000). Economic growth and human development. *World Development*, 28(2), 197–219. 10.1016/S0305-750X(99)00131-X.
- Rao, N. D., & Min, J. (2018). Decent Living Standards: Material Prerequisites for Human Wellbeing. *Social Indicators Research*, 138(1), 225–244. 10.1007/S11205-017-1650-0.
- Rashid, I. M. B. A. (2018). *Foreign Direct Investment Inflows In Agriculture , Agriculture Growth , And Poverty In Selected Sub-Organization Of Islamic Cooperation Countries*. University Utara Malaysia (UUM): Ph.D Thesis.
- Ray, D. (2019). Economic Development: Overview. *Development Economics*, 7–46. <https://doi.org/10.2307/j.ctvc4hmx.5>
- Robbins, L. (1968). *The Theory of Economic Development in The History of Economic Thought*.
- Samuelson, P.A. (1949). International factor price equalization once gain. *Economic Journal*. LIX (234), 181-197.
- Samuelson, P.A. (1953). Prices of factors and goods in general equilibrium. *Review of Economic Studies*, 21(12), 1-20

- Saxena, H., & Bansal, P. K. (2019). Relationship between Economic Factors and Economic Growth. *SSRN Electronic Journal*. 10.2139/ssrn.3319961.
- Shahid, M. F., & Mahbuba, E. (2013). Study on nature of inflation and its relationship with GDP growth rate: a Case Study on Bangladesh. *IOSR Journal of Economics and Finance*, 1(3), 40–49.
- Schilirò, D. (2017). *A glance at Solow's growth theory*. https://mpra.ub.uni-muenchen.de/84531/1/MPRA_paper_84531.pdf.
- Schumacher, R. (2012). Adam Smith's theory of absolute advantage and the use of doxography in the history of economics. *Erasmus Journal for Philosophy and Economics*, 5(2), 54-80.
- Schumpeter, J. A. (2017). *Theory of economic development*. Routledge.
- Seeberg, V. (2020). Human development and capability approach: A contribution to the study of comparative and international education. *International Perspectives on Education and Society*, 39, 89–110. <https://doi.org/10.1108/S1479->
- Seligson, M. A. (2019). *The gap between rich and poor: Contending perspectives on the political economy of development*. Routledge.
- Sen, A. (1984). The living standard. *Oxford Economic Papers*, 36, 74-90.
- Senkuku, A.M, & Gharlegghi, B. (2015). Factors Influencing Foreign Direct Investment Inflow in Tanzania. *International Journal of Business and Management*, 10(7). <https://doi.org/10.5539/ijbm.v10n7p48>.
- Seretis, S. A., & Tsaliki, P. V. (2016). Absolute advantage and international trade: Evidence from four Euro-zone economies. *Review of Radical Political Economics*, 48(3), 438-451.
- Shaerer, R. A. (1961). The Concept of Economic Growth. In *Kyklos*.
- Shahidan, M., Shaari, M. S, bin A. H., & Ermawati, H.N. (2012). The Impact of Foreign Direct Investment on the Unemployment Rate and Economic Growth in Malaysia. *Journal of Applied Sciences Research*, 8(9), 4900–4906.

- Shin, Y., Yu, B., & Greenwood-Nimmo, M. (2014). Modelling Asymmetric Cointegration and Dynamic Multipliers in a Nonlinear ARDL Framework. *Festschrift in Honor of Peter Schmidt*, 281–314. 10.1007/978-1-4899-8008-3_9
- Shrestha, M. B., & Bhatta, G. R. (2018). Selecting appropriate methodological framework for time series data analysis. *The Journal of Finance and Data Science*, 4(2), 71–89. <https://doi.org/10.1016/J.JFDS.2017.11.001>.
- Silva, C., & Godina, R. (2020). Goodness-of-fit Tests Comparison for Statistical Process Control in an Automotive Industrial Unit. *ICITM 2020 - 2020 9th International Conference on Industrial Technology and Management*, 161–165. 10.1109/ICITM48982.2020.9080401.
- Silve, A. (2013). The main indicators of economic development Development , a multidimensional concept. *Econ220 Journal*, 1-24.
- Simon, J. L. (2019). *The economics of population growth* (Vol. 5403). Princeton University Press.
- Smith, R., & Zoega, G. (2009). Keynes, investment, unemployment and expectations. *International Review of Applied Economics*, 23(4), 427–444. 10.1080/02692170902954767.
- South Africa Planning Monitoring and Evaluation. (2013). Development indicators. *Social Indicators Research*, 9(3), 369–385. 10.1007/BF00300662.
- Soylu, Ö. B., Çakmak, I., & Okur, F. (2018). Economic growth and unemployment issue: Panel data analysis in Eastern European Countries. *Journal of International Studies*, 11(1), 93–107. 10.14254/2071-8330.2018/11-1/7
- Stewart, F., Ranis, G., & Samman, E. (2018). Advancing human development: Theory and practice. In *Advancing Human Development: Theory and Practice*. Oxford University Press. 10.1093/oso/9780198794455.001.0001
- Strat, V. A., Davidescu(Alexandru), A., & Paul(Vass), A. M. (2015). FDI and The Unemployment - A Causality Analysis for the Latest EU Members. *Procedia Economics and Finance*, 23, 635–643. 10.1016/s2212-5671(15)00448-7.

- Sun, X. (2002). *Foreign Direct Investment and Economic Development What Do the States Need To Do ?*
- Sun, H. (2018). *Foreign investment and economic development in China: 1979-1996*. Routledge.
- Suranovic, S. (2010). *International trade: Theory and policy*.
- Susic, I., Stojanovic-Trivanovic, M., & Susic, M. (2019). Foreign direct investments and their impact on the economic development of Bosnia and Herzegovina. *Innovative Ideas in Science- IOP Publishing*.
- Tawa, D., Ebum, O., & Ishiaka, A. (2015). Effect of roasting on some physicochemical and antimicrobial properties of cashew nut (*Anacardium occidentale*) oil. *International Journal of Science and Technology*, 4, 555-559.
- Tenzin, U. (2019). The Nexus Among Economic Growth, Inflation and Unemployment in Bhutan. *Royal Government of Bhutan. South Asia Economic Journal*, 20(1), 94–105. 10.1177/1391561418822204.
- Thalberg, B., Holte, F., & Thalberg, B. (1990). A Contribution to the Theory of Unemployment. *The Scandinavian Journal of Economics*, 92(4), 627. 10.2307/3440399.
- The Economist Group. (2019). *Chad Economy, Politics and GDP Growth Summary - The Economist Intelligence Unit*. Retrived on June 10, 2020, from <https://country.eiu.com/chad>
- The Global Fund. (2018). *Chad - Country Overview*. Retrived on March 4, 2019, from <https://www.theglobalfund.org/en/portfolio/country/?loc=TCD&k=c546498f-21fe-4685-909b-8a127a57afb0>.
- The Heritage Foundation. (2019). *2019 Index of Economic Freedom. Chad Economy: Population, GDP, Inflation, Business, Trade, FDI, Corruption*. Retrived on March 4, 2019, from <https://www.heritage.org/index/country/chad>.
- The International Economic Development Council's. (2018). *Economic Development Reference Guide: The power of knowledge and leadership*. 1–68.

- The Library of Economics and Liberty. (2019). *Economic Growth - Econlib*.
Retrieved on February 4, 2019, from
<https://www.econlib.org/library/Topics/College/economicgrowth.html>
- The World Bank. (2020). *Gross National Income for Chad*. Federal Reserve Bank of St. Louis.
- The World Bank. (2019a). *Poverty and Equity | DataBank*. Retrieved on April 4, 2020, from <https://databank.worldbank.org/source/poverty-and-equity>
- The World Bank. (2019b). *The World Bank in Chad: Chad Overview*. Retrieved on March 4, 2019, from <https://www.worldbank.org/en/country/chad/overview>
- Theodora. (2019). Chad Economy 2019, CIA World Factbook. Retrieved on March 4, 2019, from https://theodora.com/wfbcurrent/chad/chad_economy.html
- Todaro, M. P., & Smith, S. C. (2015). *Economic Development 12th ed.*
- Todaro, M., & Smith, S. (2011). Introducing To Economic Development: a Global Perspective. *Economic Development*, 2–27.
- Topalli, M., Papavangjeli, M., Ivanaj, S., & Ferra, B. (2021). The Impact of Foreign Direct Investments on Poverty Reduction in the Western Balkans. *Economics*, 15(1), 129–149.
- Tovohery, J. M., Totohasina, A., & Rajaonasy, F. D. (2020). Application of Equality Test of Coefficients of Variation to the Heteroskedasticity Test. *American Journal of Computational Mathematics*, 10(01), 73–89.
- Trading Economics. (2020a). *Chad GDP per capita | 1960-2019 Data | 2020-2022 Forecast | Historical | Chart | News*. Retrieved on January, 10, 2021, from <https://tradingeconomics.com/chad/gdp-per-capita>
- Trading Economics. (2020b). *Chad GDP per capita PPP | 1990-2019 Data | 2020-2022 Forecast | Historical | Chart*. Retrieved on January, 10, 2021, from <https://tradingeconomics.com/chad/gdp-per-capita-ppp>.
- Tülüce, N. S., & Yurtkur, A. K. (2015). Term of strategic entrepreneurship and

Schumpeter's creative destruction theory. *Procedia-Social and Behavioral Sciences*, 207, 720-728.

UNCTAD. (2014). *Transfer of Technology and Knowledge Sharing for Development - Science, technology and innovation issues for developing countries*.
www.unctad.org.

UNCTAD. (2018). *UNCTAD Handbook of Statistics 2018 - Foreign direct investment*. Retrived on March 5, 2019, from
https://unctad.org/en/PublicationChapters/tdstat43_FS09_en.pdf

UNCTAD. (2019). *World Economic Situation and Prospects 2019: Executive summary*.

UNDP. (2019a). *Human Development Report 2019-Beyond income, beyond averages, beyond today: Inequalities in human development in the 21st century*.

UNDP. (2019b). *Inequalities in Human Development in the 21 st Century Chad Introduction*.

United Nations. (2015). *World Economic Situation and Prospects 2015*.

United Nations Development Programme. (2019). *Human Development Index (HDI) / Human Development Reports*.

United Nations Development Programme. (2020). *The Next Frontier: Human Development and the Anthropocene Chad Introduction*.

United Nations Industrial Development Organization. (2008). *Foreign Direct Investment in Sub-Saharan Africa : Determinants and Location Decisions*. 1–38.

Vandenberg, H., & Rosete, A. R. (2019). Extending the Harrod-Domar model: Warranted growth with immigration, natural environmental constraints, and technological change. *Am. Rev. Political Econ*, 3.

Vecchio, G., & Martens, K. (2021). Accessibility and the Capabilities Approach: a review of the literature and proposal for conceptual advancements. *Transport Reviews*, 0. <https://doi.org/10.1080/01441647.2021.1931551>

- Vintu, D. (2022). The Relationship between Inflation, Interest Rate, Unemployment and Economic Growth. *Sochi Journal of Economy*, 16(1), 49–65.
- Wafula, C. M., & Koome, S. G. (2013). DBA Africa management review. *DBA Africa Management Review*, 8(1).
- Wakyereza, R. K. S. (2017). The Impact of Foreign Direct Investment on Economic Growth, Employment and Poverty Reduction in Uganda [Victoria University, Melbourne Australia]. In *International Research Journal of Finance and Economics* (Vol. 73). <https://doi.org/10.9790/5933-0802032833>
- Wang, Y. (2022). *Recognition of Marx 's Machine Thought and Human Development from the Perspective of Intelligent Society*
- Wei, Y. A., & Balasubramanyam, V.N. (2005). Book Reviews. Foreign Direct Investment: Six Country Case Studies. *Transnational Corporations*, Vol. 14(No. 2), 218.
- Weitzman, M. L. (1982). Increasing Returns and the Foundations of Unemployment Theory. *The Economic Journal*, 92(368), 804. <https://doi.org/10.2307/2232668>
- Wikarta, E. K. (2020). Towards Green Economy : The Development of Sustainable Agricultural And Rural Development Planning, The Case On Upper Citarum River Basin West Java Province Indonesia. *Ecodevelopment Journal*, 3(1), 21–26.
- Worden, K., Iakovidis, I., & Cross, E. J. (2019). On stationarity and the interpretation of the ADF statistic. In *Dynamics of Civil Structures, Volume 2* (pp. 29-38). Springer, Cham.
- World Bank Group. (2016). *World Development Indicators- The World By Region*. Retrived on March 4, 2019, from <https://openknowledge.worldbank.org/bitstream/handle/10986/23969/9781464806834.pdf>
- World Bank. (2019). *Darkening Prospects: Global Economy to Slow to 2.9 percent in 2019 as Trade, Investment Weaken*.

- World Bank. (2020a). *World Development Indicators / DataBank*. Retrived on March 3, 2020, from <https://databank.worldbank.org/source/world-development-indicators>.
- World Bank. (2020b). *Youth Unemployment Rate for Chad*. FRED, Federal Reserve Bank of St. Louis. Retrived on March 3, 2020, from <https://fred.stlouisfed.org/series/SLUEM1524ZSTCD>
- World Population Review. (2019). *Chad Population 2019 (Demographics, Maps, Graphs)*. <http://worldpopulationreview.com/countries/chad-population>.
- Yakunina, R. P., & Bychkov, G. A. (2015). Correlation Analysis of the Components of the Human Development Index Across Countries. *Procedia Economics and Finance*, 24, 766–771. [https://doi.org/10.1016/S2212-5671\(15\)00692-9](https://doi.org/10.1016/S2212-5671(15)00692-9)
- Yamazaki, S. (2012). Need and Distribution in Pigou's Economic Thinking. In *12th International Conference*.
- Yamazaki, S. (2021). Pigou's Welfare Economics Revisited. *Welfare Theory, Public Action, and Ethical Values*, 97–117. 10.1017/9781108882507.005.
- Yamazaki, S. (2011). Need and Distribution in Pigou's Economic Thinking. *11th Conference of International Society for Utilitarian Studies*, 1–24.
- Yilanci, V., Aydin, M., & Aydin, M. (2019). Residual Augmented Fourier ADF Unit Root Test.
- Yong, C. C., Yew, S. Y., & Teh, P. L. (2015). The mediating role of export-oriented Japanese foreign direct investment in China. *Chinese Business Review*, 09(09). 10.17265/1537-1506/2010.09.001.
- Zekarias, S. M. (2016). The impact of foreign direct investment (FDI) on economic growth in Eastern Africa: Evidence from panel data analysis. *Applied Economics and Finance*, 3(1), 145-160.
- Zeb, N. (2017). Foreign Direct Investment And Unemployment Reduction In Pakistan. *International Journal of Economics*, 5(12), 10–17. www.ijeronline.com

- Zhanuzakova, L., Dossanova, M., Tazabekov, M., & Mukhamejanov, E. (2019). The Relationship between Economic Growth and Economic Development: A Regional Assessment in South Africa. *Journal of Advanced Research in Law and Economics*, 9(5), 1819. [https://doi.org/10.14505//jarle.v9.5\(35\).37](https://doi.org/10.14505//jarle.v9.5(35).37)
- Zheng, J., & Sheng, P. (2017). The Impact of Foreign Direct Investment (FDI) on the Environment: Market Perspectives and Evidence from China. *Economies*, 5(1), 8. <https://doi.org/10.3390/economies5010008>.
- Zivot, E., & Andrews, D. (1992). Further evidence of great crash, the oil price shock and unit root hypothesis. *Journal of Business and Economic Statistics*, 10, 251–270.
- Zubair, Z. (2018). *The Effect Of Institutions Quality, Human Capital And Infrastructure On FDI And Economic Growth On The Five Selected ECOWAS Countries*. University Utara Malaysia (UUM): Ph.D. Thesis.



LIST OF PUBLICATIONS

Conference/Journal

- Gueme, G. M., Ali, Maimunah & Khalil, K. (2020(b)). Factors Affecting Economic Development in Republic of Chad: A Review Paper. *Proceedings of the 35th International Business Information Management Association (IBIMA)*, (ISBN: 978-0-9998551-4-0), 4151–4163.
- Gueme, G. M., & Ali, Maimunah. & Khalil, K. (2020(a)). The Causality Effect of Foreign Direct Investment on Economic Growth in Sub Saharan Africa: An Empirical Evidence from Chad Using ARDL Approach. *Proceeding of the 35th International Business Information Management Association (IBIMA)*, (ISBN: 978-0-9998551-5-7).3.
- Ganama Moustapha (2019). The Effects of Government Expenditure, GDP, Money Supply, and Foreign Exchange Rate on the Economic Growth of Chad: An ARDL Approach, *Journal of Economics Studies and Research* (ISBN: 978-0-9998551-2-6).
- Ganama Moustapha and Maimunah Ali. (2019). The US Dilemma: Inflation Rate and The US Economic Growth, *The 1st International Conference on Business, Management and Information Systems 2019*.
- Khalil Kaya Abd Rahman Ahmad, Ganama@Amina Moustapha, Hairul Rizad Md Sapry, Ali Orozi Sougui. (2020). The Effect of the Foreign Aid on Poverty Reduction: A Structural Equation Modelling. *International Journal of Advanced Science and Technology*, 29(06), 8523-8534.
- Mohammed Hayder Nadhim, Ganama Moustapha Gueme et al. (2019). Innovative Characteristics Among Small and Medium Enterprises in (Johor) Malaysia, *International Journal of Engineering and Advanced Technology (IJEAT)* (ISSN: 2249 – 8958, Volume-8 Issue-5C).
- Ganama Moustapha Gueme, Ali Taha Oleiwi et al. (2019). The Relationship Between Credit Risk Management Practices and Profitability in Malaysian Commercial Banks, *Blue Eyes Intelligence Engineering & Sciences Publication* (Volume-8

Issue-5C, ISSN: 2249-8958).

Khalil Kaya and Abd Rahman, Ganama M., Gueme. (2021). The Effect of Foreign aid and Vocational Training on Poverty Reduction Strategy: An Empirical Evidence from Chad Republic for 5th ASIA International Multidisciplinary Conference Economics, Business and Management.

Khalil Kaya and Abd Rahman, Ganama M., Gueme. (2019). The Failure of Poverty Reduction Strategy Implementation in The Republic of Chad: A Review Paper Conference (34th IBIMA) Madrid, Spain 13-14.

Khalil Kaya and Abd Rahman, Ganama M., Gueme (2020). A Review of the Literature on the Influence of Foreign Aid on Poverty Reduction Strategy Implementation: A Case of Chad Republic (34th IBIMA) Madrid, Spain 13-14.

Khalil Kaya and Abd Rahman, Ganama M., Gueme (2020). The Mediating Role of Foreign Aid on The Relationship Between Human Capital Factors and Poverty Reduction Strategy Implementation in Republic of Chad. (35th IBIMA) Madrid, Spain 13-14.

Ganama Moustapha Gueme, Maimunah Binti Ali and Khalil Abakar Moussa Kaya. (2022). Foreign Direct Investment and Economic Development in Sub Saharan Africa: A Case of Chad Republic. ISSN: 2169-8767, ISBN: 978-1-7923-6124-1.



VITA

The author Ganama Moustapha Gueme was born on January 7th in N'djamena, Chad from the family Moustapha Gueme Abba and the mother Kelme Habiba Mahamat. She attended nursing school at Centre Social du Grand Marché in 1997 where she attended primary school at Pauline Jaricot Catholic School in 1999. She attended Adventist school and Cheick Hamdan Bin Rasheed school where she completed her high school in 2013. In 2014, she attended Universiti Utara Malaysia where she obtained her Bachelor degree in Economics with honour in 2017. In the same year after completing her degree, she attended Universiti Tun Hussein Onn Malaysia where she obtained her Master and then further pursued her PHD in the same university (UTHM). The author successfully passed her Ph.D viva on 02/09/2021; with that the author completed her Ph.D. the faculty of Technology Management and Business at UTHM. In the meantime, the author Ganama Moustapha has published journal and conference papers. Her research interests include economics, finance, technopreneurship, strategic management, economics of innovation, and finance. In addition, the author has experience in teaching, research and industry for about 3 years.



PERPUSTAKAAN TUN HUSSEIN ONN MALAYSIA