

**Czech University of Life Sciences Prague**

**Faculty of Economics and Management**

**Department of Economics**



**Bachelor Thesis**

**Impact of ECOWAS Trade Agreement on the  
Economy of Guinea-Bissau**

**Aleksandra Tomshina**

**© 2023 CZU Prague**

## **Declaration**

I declare that I have worked on my bachelor thesis titled "Impact of ECOWAS Trade Agreement on the Economy of Guinea-Bissau " by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on 15.03.2023

---

### **Acknowledgement**

I would like to thank doc. Ing. Irena Benešová, Ph.D. and all other persons, for their advice and support during my work on this thesis.

# **Impact of ECOWAS Trade Agreement on the Economy of Guinea-Bissau**

## **Abstract**

The main goal of the following work lies in the assessment of the impact of regional trade treaties and notably, of ECOWAS accession of Liberia on the domestic economy of the selected country. In addition to that, the author answers the question of whether the country's economic situation improved after signing the following treaty or not.

The author primarily focuses on quantitative or empirical approach for her research. To be more specific, this quantitative approach involves the empirical analysis of the development of the nominal GDP indicator before the accession to ECOWAS and after the accession of Guinea Bissau.

The empirical analysis is based on the trend analysis that will indicate average annual increment in the GDP before and after the accession and this analysis will also indicate changes in the independent variables before and after the accession. The main database used for the collection of data is The World Bank and kind of data used for the analysis is time series data from 1991 to 2010.

In fact, the country's accession to the ECOWAS has brought numerous benefits in the form of improved performance for all macroeconomic variables considered, being unemployment, inflation rate, official exchange rate, foreign direct investment and the nominal GDP. According to the author's analysis and reflections that were produced based on empirical research, the economic performance for the post-accession and post-transition period is significantly better and the accession to the ECOWAS has strengthened the cooperation between countries in the West-African Region.

**Keywords:** ECOWAS, Guinea-Bissau, foreign trade, trend analysis, tariffs, disparities, integration, GDP

# Dopad obchodní dohody ECOWAS na hospodářství Guineje-Bissau

## Abstrakt

Hlavním cílem následující práce je posouzení dopadu regionálních obchodních smluv a zejména přistoupení Libérie k ECOWAS na domácí ekonomiku vybrané země. Kromě toho autor odpovídá na otázku, zda se ekonomická situace země zlepšila po podpisu následující smlouvy nebo ne.

Autorka se ve svém výzkumu zaměřuje především na kvantitativní nebo empirický přístup. Přesněji řečeno, tento kvantitativní přístup zahrnuje empirickou analýzu vývoje ukazatele nominálního HDP před přistoupením k ECOWAS a po přistoupení Guineje Bissau.

Empirická analýza je založena na analýze trendů, která bude indikovat průměrný roční přírůstek HDP před a po přistoupení a tato analýza bude také indikovat změny nezávislých proměnných před a po přistoupení. Hlavní databázi používanou pro sběr dat je Světová banka a druh dat používaných pro analýzu jsou data časových řad od roku 1991 do roku 2010.

Přistoupení země k ECOWAS ve skutečnosti přineslo řadu výhod ve formě zlepšeného výkonu pro všechny uvažované makroekonomické proměnné, jako je nezaměstnanost, míra inflace, oficiální směnný kurz, Přímé Zahraniční Investice a nominální HDP. Podle autorovy analýzy a úvah, které byly vytvořeny na základě empirického výzkumu, je ekonomická výkonnost po přistoupení a po přechodném období výrazně lepší a přistoupení k ECOWAS posílilo spolupráci mezi zeměmi v západoafrickém regionu.

**Klíčová slova:** ECOWAS, Guinea-Bissau, zahraniční obchod, analýza trendů, tarify, disparity, integrace, HDP

## Table of contents

<b>1</b>	<b>Introduction .....</b>	<b>8</b>
<b>2</b>	<b>Objectives and Methodology .....</b>	<b>11</b>
2.1	Objectives.....	11
2.2	Methodology .....	11
<b>3</b>	<b>Literature Review .....</b>	<b>13</b>
3.1	ECOWAS.....	13
3.1.1	History .....	13
3.1.2	Purposes.....	15
3.1.3	Economic centres.....	17
3.2	Guinea-Bissau's economy.....	18
3.2.1	History .....	20
3.2.2	Sectors.....	24
3.3	Economic integration .....	24
<b>4</b>	<b>Practical Part .....</b>	<b>27</b>
4.1	Descriptive analysis .....	27
4.2	Time series analysis .....	29
4.2.1	Pre-accession period .....	33
4.3	Linear regression analysis.....	33
4.3.1	Pre-accession Period.....	34
4.3.2	Post-accession Period .....	37
<b>5</b>	<b>Results and Discussion .....</b>	<b>40</b>
5.1	Effect of Accession .....	40
5.2	Future Partnership.....	41
<b>6</b>	<b>Conclusion .....</b>	<b>43</b>
<b>7</b>	<b>References .....</b>	<b>44</b>

## List of pictures

Figure 1, GDP, billion USD .....	29
Figure 2, unemployment, % .....	30
Figure 3, inflation, %.....	31
Figure 4, exchange rate, domestic currency to USD .....	32
Figure 5, FDI net inflow in million USD .....	33

Figure 6, correlation matrix for the pre-accession period .....	35
Figure 7, OLS for the pre-accession period .....	35
Figure 8, econometric tests for the pre-accession period .....	36
Figure 9, correlation matrix for the post-accession period.....	37
Figure 10, OLS for the post-accession period.....	37
Figure 11, econometric tests for the post-accession period .....	38

## **List of abbreviations**

**ECOWAS**...Economic Community of West African States

**GDP**...Gross Domestic Product

**CPI**...Consumer Price Index

**USD**...United States Dollar

**ILO**...International Labour Organization

# 1 Introduction

The Treaty establishing the European Community (EC) came into effect in 1958. It is possible that this deal may go down in history as the first Comprehensive Regional Trade Agreement (RTA) (Bulmer, 1994). In 1992, there was a noticeable acceleration in the pace at which the total number of RTAs was growing. After that point, the number of RTAs has been rising steadily ever since. As a method of expanding collaboration on trade rules and other areas of policymaking, governments are increasingly turning to regionalism as a means of doing so. As a result, regulations on trade and investment are gradually more being included into regional trade agreements (RTAs) (Sarker and Jayasinghe, 2007). The violation of the most-favored nation (MFN) concept is compatible with basic GATT regulations; this infringement was eventually remedied by the addition of Article XXIV and the approval of the "Enabling Clause" judgement in GATT in 1979 (McRae, 2012).

In July of 1971, the European Union was the first collection of industrialized nations to launch its Generalized System of Preferences (GSP) program; however, other developed countries quickly followed in its footsteps (Cuyvers and Soeng, 2013). As a means of attaining economic growth via investment and trade, RTAs have resulted in a mixed bag of outcomes thus far. However, a nation's position in RTAs may also be influenced by elements such as its internal politics, systemic economics, commercial strategy, content, and political issues. While some regional trade agreements (RTAs) have been enormously beneficial for the nations who are parties to these accords, others have not been as effective in bringing about the amount of economic growth that was intended (Okoro *et al.*, 2020).

Throughout pursuit of this similar economic progress, the Economic Community of West African States regional trade agreement; a regional organization known as the ECOWAS Trade Liberalization Scheme (ETLS) was founded on May 28th 1975 with the goal of supporting free movement of transport, products, and people in the area, including the elimination of all tariff and non-tariff trade obstacles (Igwe *et al.*, 2021). The advantages of a fully implemented ECOWAS Trade Liberalization Scheme for West Africa might lead to increased economic development in Guinea-Bissau and other ECOWAS nations in the form of investment, trade facilitation, increased market access, reduced consumer prices, and trade-related job creation (Okom *et al.*, 2017). In the longer term, the Economic



Community of West African States (ECOWAS) intended to move toward a comprehensive customs union, create a monetary union, and ultimately establish a single market in order to promote commerce within the area.

In addition, a regional trade agreement is a prerequisite for the achievement of the more expansive objectives of expanding the local market, achieving economies of scale, and bolstering negotiating positions in global discussions (Yang and Gupta, 2005). On July 24, 1993, during a review of the treaty that established ECOWAS, the member states of ECOWAS agreed that the organization would, over time, transform into the sole economic community in the region with a view toward economic integration and the realization of the objectives of the African Economic Union. This was an agreement that was reached during the review of the treaty that established ECOWAS (Adetula *et al.*, 2016).

The Economic Community of West African States (ECOWAS) is comprised of the following 15 countries: Benin, Burkina Faso, Cape Verde, Côte D'Ivoire, Guinea, Ghana, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo. Because Mauritania withdrew from the organization in 2001, the total number of Member States is now down to fifteen (15), down from sixteen (16). It is also important to highlight that the nations that make up ECOWAS are confronted with a wide variety of issues. Some examples of these challenges include poverty and food insecurity, low per capita income, poor literacy levels, wars, and overpopulation. There are still 14 member nations that are considered to be among the least developed countries (Banik and Yoonus, 2012).

Guinea-Bissau is a coastal nation in West Africa with a population of little under 2 million. The nation is burdened by various obstacles, such as political instability, inadequate infrastructure, and a low levels of investment, despite the fact that it has a rich cultural legacy and has the potential for economic expansion.

Over the last several years, the government of Guinea-Bissau has exerted a substantial amount of effort to solve these difficulties and to enhance the economic prospects of the nation as a whole (Barry, 2007).

The impact of the ECOWAS Trade Agreement on the economy of Guinea-Bissau is a crucial topic of investigation. This is because the agreement has the potential to provide significant benefits to the country, including increased trade and investment flows, job

creation, and economic growth. However, there are also potential setback, such as increased competition from larger, more established economies within the region. This thesis seeks to evaluate the impact of the ECOWAS Trade Agreement on the economy of Guinea-Bissau, with a focus on trade, investment, and economic growth. The study will assess the effectiveness of the agreement in promoting economic development and integrating Guinea-Bissau into the regional and global economy. Overall, this thesis will provide valuable insights into the impact of the ECOWAS Trade Agreement on the economy of Guinea-Bissau. It will inform policymakers and stakeholders about the potential benefits and drawbacks of the agreement, and will help to identify areas for improvement in order to maximise its positive impact on the country's economic prospects.

## 2 Objectives and Methodology

### 2.1 Objectives

The main goal of the following work lies in the assessment of the impact of regional trade treaties and notably, of ECOWAS accession of Liberia on the domestic economy of the selected country. In addition to that, the author answers the question of whether the country's economic situation improved after signing the following treaty or not.

### 2.2 Methodology

The author primarily focuses on quantitative or empirical approach for her research. To be more specific, this quantitative approach involves the empirical analysis of the development of the nominal GDP indicator before the accession to ECOWAS and after the accession of Guinea Bissau.

This empirical analysis is done through couple of main elements, such as a linear regression analysis, where the GDP of the country is taken as a dependent variable with a set of pertinent macroeconomic variables including inflation rate in %, unemployment in %, official exchange rate of domestic currency per USD and foreign direct investments in million USD.

The second empirical analysis is based on the time series analysis, which involves the observation of changes in variables over selected periods, where the period from 1991 to 2000 is selected as a pre-accession period and the period from 2001 to 2021 is taken as a post-accession period. The whole dataset indicates the development of aforementioned indicators from 1991 to 2021.

In addition to that, it is wise to specify formulas and techniques used for the calculation in more detail. For the linear regression analysis, the author considers the OLS method, which is essentially based on the following formula:

$$OLS\ parameters = (X^T X)^{-1} X^T Y \quad (1)$$

Apart from the estimation of OLS parameters, the author also uses other techniques mainly focused on the time series analysis, such as base index, which is calculated according to the formula (2):

$$\text{Base Index} = \frac{\text{Value from selected year}}{\text{Base year}} - 1 \quad (2)$$

In addition to the base index, the author also considers another series of measures used mainly for the descriptive analysis implemented in the practical part, where the following measures are calculated:

$$\text{Mean} = \frac{\sum X}{N} \quad (3)$$

$$\text{Median} = \begin{cases} X \left[ \frac{N+1}{2} \right], & \text{if } n \text{ is odd} \\ \frac{X \left[ \frac{N}{2} \right] + X \left[ \frac{N}{2} + 1 \right]}{2}, & \text{if } n \text{ is even} \end{cases} \quad (4)$$

$$\text{Standard Deviation} = \sqrt{\frac{\sum (X_i - \bar{X})^2}{N}} \quad (5)$$

$$\text{Coefficient of Variation} = \frac{\sigma}{\bar{X}} \quad (6)$$

## **3 Literature Review**

### **3.1 ECOWAS**

ECOWAS (Economic Community of West African States) is an international organisation made up of fifteen independent countries located within West Africa. Similar to the European Union, it is an economic community that strives to promote co-operation and integration among its members. The organisation does not in any way intend to abrogate or substitute the municipal laws of the Member States with the Community rules; rather, it does envisage creating laws which would apply to and in all the Member States in order to quicken integration and harmonise practices. Through various initiatives and programs, ECOWAS works to remove trade barriers, harmonize economic policies, and facilitate the movement of goods, services, and people across the region.

Additionally, ECOWAS also plays a crucial role in resolving conflicts and promoting democracy and good governance in the region. The ultimate aim of ECOWAS is to create an economic union anchored on common market and custom union principles with a view to raising the living standards of the citizens. In elementary terms, the Community wants to, though gradually, reduce the whole West Africa into a single market, without barriers of any sort among the Member States, so that persons, goods, capital and services could move around freely (Ukaigwe, 2016).

#### **3.1.1 History**

The Economic Community of West African States (ECOWAS) was formed by the Treaty of Lagos on May 28, 1975, in Lagos State, Nigeria to promote economic cooperation and development in the subregion. After the withdrawal of Mauritania from the subregion in 1999, it is currently made up of 15-member countries. The formation of ECOWAS came on the heels of the recognition of the imperative of regional approach to development in Africa. Scholars have shown how early post-independent African leaders debated the best form of political economic arrangement for fostering development. While some of the leaders advocated radical regionalism and continental integration, some argued for a gradualist approach (Ndlovu-Gatsheni, 2013).

Radical post-independent African leaders like Kwame Nkrumah of Ghana, Modibo Keita of Mali, Sekou Toure of Guinea and Nnamdi Azikwe of Nigeria saw the need for an integrated Africa as a necessary condition for facilitating development. However, gradualists like Mwalimu Nyerere of Tanzania, Tafawa Balewa of Nigeria and leaders of most former French colonies preferred a gradualist approach to integration, while giving room for the national authorities of the respective states to lead the development process (Adedeji, 2012).

The formation of ECOWAS was preceded by various meetings which were attended by leaders from the newly independent countries in the subregion. Despite the personal ego of the leaders, the colonially imposed boundaries and differences between Anglophone and Francophone countries, many of the leaders made spirited efforts to forge an integrative agenda in the years after independence. Indeed, the Francophone countries established and maintained regional organisations that subsisted and in some instances still subsist today. However, regional organisations and institutions in Anglophone countries fell apart around the same time that they got political independence. Notwithstanding, meetings were held in Lagos, Niger and Liberia, Lome and Lagos again between 1963 and 1975 before ECOWAS was eventually formed in 1975 (Oloruntoba, 2016).

It was in recognition of the developmental potentials of regional approach to development that ECOWAS was established to foster development. The goals of the Community are to maintain and improve economic stability, foster relations among Member States, and contribute to the expansion and development of the African continent. In order to achieve these goals, the Community will work to encourage economic cooperation and integration, which will ultimately lead to the formation of an economic union in West Africa. This will allow the people of West Africa to enjoy a higher standard of living. Other objectives of the Community include a gradual removal of obstacles to the movement of factors of production, harmonisation of economic policies, facilitation of investment, boosting of industrialisation and establishment of a bridging fund to meet the needs of less developed members, free movement of people, a common population policy and so on. The Treaty of Lagos, which laid the basis for the establishment of ECOWAS in 1975, was largely informed by the need for economic cooperation among the member states. However, this Treaty was revised in 1993 to accommodate issues of political concerns such as promotion of good governance and democracy as well as maintenance of peace and security (Oloruntoba, 2016).

The relevance of ECOWAS continues to find currency in the context of neoliberal global economic order, in which trade liberalisation has continued to be pushed down the throat of the countries in the subregion. Following the Uruguay Round of trade negotiations in 1994, the World Trade Organisation was established as a replacement to the General Agreements on Trade and Tariff. This organisation, acting as the third arm of the Brettonwood institutions, that is, the World Bank and the International Monetary Fund has been charged with promotion of free trade. As an aftermath of the forced adoption of the Structural Adjustment Programmes in the 1980s and 1990s, ECOWAS member countries suffered negative growth. Although tariffs were removed on most of the traded goods, the promise that trade liberalisation will lead to rapid economic development has not been realised (Oloruntoba, 2016).

The body of ECOWAS is made up of specialised agencies and Institutions. The Institutions comprise: The Commission, The Authority of Heads of States and Government, The Community Court of Justice, The Community Parliament, Specialised Technical Committees, Council of Ministers, as well as the ECOWAS Bank for Investment and Development (EBID) (ECOWAS CEDEAO).

The following are ECOWAS Specialised Agencies: West African Monetary Agency (WAMA), West African Health Organisation (WAHO), ECOWAS Gender and Development Centre, Inter-governmental Action Group against Money Laundry and Terrorist Financing in West Africa (GIABA), ECOWAS Water Resources Coordination Centre, ECOWAS Youth and Sports Development Centre, ECOWAS Regional Centre for Renewable Energy and Energy Efficiency (ECREEE), West African Power Pool, ECOWAS Regional Electricity Regulatory Authority (ERERA), ECOWAS Brown Card Scheme, and ECOWAS Infrastructure Projects Preparation and Development Unit (PPDU) (ECOWAS CEDEAO).

### **3.1.2 Purposes**

ECOWAS as a Regional Economic Community seeks to achieve in phases: - a Free Trade Area/Zone, Market Integration (common market), Customs Union, Financial Integration/Monetary Union and Economic Union by liberalizing trade across borders,

encouraging cross-border investments, promoting free movement of goods, persons, services and capital (Ladan and Tawfiq, 2021).

The treaty establishing ECOWAS, among other things, provided for trade liberalization and the establishment of an economic community among member countries. Specifically, the Community would ensure by stages:

- The elimination of customs duties and other charges with respect to trade flows among member countries.
- The abolition of quantitative and administrative restrictions on trade flows among member states.
- The establishment of a common commercial policy and a common customs tariff toward third countries.

The objectives were to be achieved over a 15-year period. The first 2 years were a period of consolidation of customs duties and NTBs. During this period, member states were not bound to reduce or remove import duties. The second stage was the succeeding 8 years, when member states were to progressively reduce and eliminate import duties. The second phase, which entailed total liberalization of trade, was based on three product types and three groups of countries for its implementation. The three product types included unprocessed goods, which include animal, mineral, and plant products. These products were not eligible for compensation for loss of revenue suffered as a result of their importation from member states. The second group of products was referred to as traditional handicraft products, while the third group of products was classified as industrial products produced within the Community (Jebuni, 1998).

While the first two groups of commodities have been enjoying free movement within the Community (i.e., without duties and entry charges), the timetable for the elimination of duties and taxes under the Trade Liberalization Scheme for the third product group was based on a member country's economic state as determined by level of development, the importance of custom receipts in the member state's revenue, and problems deriving from difficulty of access (landlocked members). Thus, the implementation period ranges between 6 and 10 years, with corresponding annual rate of reduction in duties and taxes of between



16.6 and 10 percent, respectively. The third stage was the next 5 years after the second stage, when member countries were expected to gradually abolish existing differences in their external customs tariffs (Jebuni, 1998)

### **3.1.3 Economic centres**

One of the economic centers of ECOWAS is Lagos, Nigeria, which is the largest city in the region and the financial center of Nigeria. Lagos is home to the Nigerian Stock Exchange (NSE), which is the largest stock exchange in West Africa and the third-largest in Africa (African Development Bank, 2020). The NSE is a crucial center for regional finance, attracting investment from all over the world, and providing a platform for regional companies to raise capital (African Development Bank, 2020).

Another important economic center in ECOWAS is Abidjan, the capital city of Côte d'Ivoire. Abidjan is a major port city and one of the largest commercial centers in West Africa (African Development Bank, 2020). The city is home to the West African Economic and Monetary Union (WAEMU), which is responsible for implementing a single monetary policy and a common currency (African Development Bank, 2020). Abidjan is also home to the West African Development Bank (WADB), which provides financing for regional projects and promotes economic integration in the region (African Development Bank, 2020).

Accra, the capital city of Ghana, is another key economic center in ECOWAS. Accra is a major commercial center and is home to the head offices of many regional and international companies (African Development Bank, 2020). The city is also a hub for regional trade, with a large port and several airports that connect it to other cities in the region (African Development Bank, 2020).

### 3.2 Guinea-Bissau's economy

Guinea-Bissau is a coastal and tropical country in West Africa that borders Senegal to the North, Guinea to the South and the Atlantic Ocean to the West. It is located in the intertropical convergence climate zone of the northwest coast of Africa. The country's surface totals 32,125 sq.km, of which at least 22% is composed of water. The country is divided into a continental and an insular part, which is home to the Bijagós Archipelago, comprising 88 islands and islets, of which 21 are inhabited (Vasconcelos *et al.*, 2015). Guinea-Bissau is also home to a dense network of river basins, including some international ones (such as the Geba-Kayanga river and the Corubal-Koliba river) (Bordalo and Savva-Bordalo., 2007).

Much of the country's land surface is in lowlands: the highest point in the country is 298 meters above sea level, and 19% to 24% of the country's land surface has altitudes of up to 10m. Tropical and subtropical forests, savannas and shrubs dominate most of the land areas, while large expanses of mangroves are concentrated in the coastal zone, covering 22% of the country's surface. Influenced by both the seasonality of the monsoon rains and the dry Harmattan winds, Guinea-Bissau's climate is warm all year round, with an average temperature of 26.3°C. The country has a relatively high level of rainfall, ranging from 1,500 to 2,000 mm per year in the coastal zone, to 1,000 to 1,500 mm in the interior. Almost all rainfall occurs between June and September/October. From December to April, the country experiences droughts (RESOLVE Ecoregions dataset, 2017; Dinerstein *et al.*, 2017).

Guinea-Bissau is a country rich in biodiversity (including coastal/marine and terrestrial biodiversity) and it has significant natural resources which have by and large not yet been explored. Currently, 26% of the national territory is located within protected areas that play an important role in maintaining these natural resources, as well as important ecosystem services, such as potential carbon sequestration. With a population of nearly 2.0 million inhabitants, growing at a rate of 2.5% per year, Guinea-Bissau is one of the poorest and most vulnerable countries in the world. More than half of the population is urban and 42% are under 15. Life expectancy at birth has improved, going from 55 years in 2010 to 58 years in 2019. Because of these and other socioeconomic indicators, Guinea-Bissau has a very weak Human Development Index (HDI), positioning the country as 177th out of 189 countries in

the current UNDP world ranking. The economy is based on non-mechanized agriculture, fishing, cashew nut exports, informal trade, and foreign aid, on which the government of Guinea-Bissau still depends to a large extent (UNEP, 2007).

According to the World Bank, Gross domestic product (GDP) per capita has dropped from \$802 in 2018 to \$727 in 2020 (both in current USD and showing a 9.3% drop in 2 years). This drop is, on the one hand, due to the effect of COVID-19 pandemic, on the other, due to the unfavorable economic environment and political instability.

Agriculture is the country's most dominant economic sector, accounting for an average of 84% of export earnings between 2016 and 2018, alongside fisheries. Both sectors employ more than 80% of the working population. The export of cashew nuts has already placed Guinea-Bissau as the 7th largest exporter in the world in 2017. In that year, cashew nut exports yielded more than \$255M to Guinea-Bissau in gross foreign revenues, mainly due to a spike in the product's price in the international market. Despite strong international demand, production did not increase, or it increased very little. Since the price of cashew nut peaked in 2017, the contribution of this commodity to export earnings decreased significantly. Other products, such as gold and timber, became part of Guinea-Bissau's export products' portfolio. Historically, the primary sectors (agriculture, forests, and fisheries) came to represent an average of 44% of GDP between 2001 and 2017 (FAO, 2018).

More recently, the services sector has grown and today represents around 45% of GDP, followed mainly by the agri-food industry (15%). After three consecutive years of sustained growth (on average 6% over 2015-2017) which was able to put an end to the long period of stagnation (2000-2014), the Bissau-Guinean economy's growth slowed significantly in 2018 at a rate of 3.8%, due to the drop in both production (-25%) and the international price of cashew nuts. In 2019, economic growth accelerated, registering a rate of 4.5%. However, due to the COVID-19 pandemic, the economy contracted recording a decrease of -2.4%. On the longer term, the IMF forecasts an average annual growth of 5%, thanks to public investment spending in major road and energy infrastructure. Nevertheless, the reversal in the price of cashew nuts and the political situation could constitute a major risk that could slow down this growth (United Nations).

### 3.2.1 History

The precolonial history of Guinea-Bissau does not have a complete record in the archaeological record due to the lack of documentation. The region has been inhabited for at least a millennia, first by hunters and gatherers and then, later, by decentralized animist agriculturalists who employed iron equipment for their rice farming. Some of these agriculturists started to move closer to the coast as a result of ethnogenesis and interethnic dynamics in the 13th century, while others intermixed with the invading Mande as the Mali empire extended into the region. Both of these events occurred simultaneously. Gold, slaves, and salt from the sea were among the goods that were brought from Guinea to other parts of the empire. As Mali expanded, it retained local, centralised power through its secondary kingdoms and their farims (local kings). The task of these farims was to maintain local law and order as well as the flow of tributary goods and soldiers as needed. This was accomplished through Mali's secondary kingdoms and their farims. In the instance of the region that is now known as Guinea-Bissau, this state was referred to as Kaabu, and the agriculturists often suffered as a result of their subservient connection to the state's economic and military requirements. Even though the Fulani first arrived in the area in the 12th century as semi-nomadic herders, it wasn't until the 15th century that they started arriving in huge numbers. Although there was something of a symbiotic connection between the Mande farmers and merchants and the Fulani herders, both of whom practiced a kind of Africanized Islam, in the beginning they were also submissive to the kingdom of Kaabu. However, the Fulani herdsman eventually overthrew the Kaabu kingdom and took control of the region (Spencer, 2019; Portuguese Historical Musuem, 2017).

Contacts with the European world started in the first part of the 15th century with the arrival of Portuguese explorers and merchants. Nuo Tristo, a Portuguese explorer who set sail in the early 1440s in quest of slaves and was slain in 1446 or 1447 by coastal locals who were hostile to his incursion, is considered to be the most notable of these explorers. He set sail in the early 1440s. During the latter half of the 15th century and the early part of the 16th century, the Portuguese had a monopoly on exploration and commerce along the coast of Upper Guinea. This continued until the French, Spanish, and English started to vie for Africa's riches (Rodney, 1965).

Tens of thousands of Guineans were forcibly transported to Cape Verde as slaves in order to create the country's plantation economy, which included the production of cotton, indigo, orchil, and urzella dyes, as well as rum, hides, and animals. Panos were one-of-a-kind textiles that were woven on a small loom and were typically comprised of six strips that were sewn together. They were the customary currency for regional commerce in the 16th century. Weaving and dyeing cotton that was cultivated by slaves made it feasible to manufacture panos. Lancados, who were independent merchants from Cape Verde, competed with the Portuguese for economic dominance in the region by taking part in the trading of commodities and slaves. There were instances when Portuguese authorities were unable to keep control over the lancados, which led to the imposition of harsh punishments in an effort to do so. In many cases, these regulations either halted all commerce with the monarchy or led to an increase in brazen acts of smuggling (McKenna, 2010).

Slaves were taken from the people who lived along the shore of Guinea-Bissau and the neighboring regions, as well as from the people who lived inland during times of conflict. During the time when Kaabu was in power, the Fulani were a frequent target. The Mande population on slave ships surged when the Fulani overthrew the kingdom of Kaabu in 1867. This was a direct cause of the rise in the number of Mande aboard slave ships. Slaves were gathered into groups, secured together in coffles, and led by grumetes to the coastal barracoons (temporary enclosures) at Cacheu, Bissau, and Bolama. These locations were in the Republic of the Congo (mercenaries). Slaves were sold to lancados and senhoras after the prices were negotiated by tangomoos, who also served in the dual role of interpreters and mediators (slave-trading women of mixed parentage). Slavery was used by the Portuguese for four centuries until it was progressively phased out by the late 1870s. However, in its stead, cruel forced labor and low salaries were instituted as a means of financing colonial taxation (O'Toole and Baker, 2005).

One cannot genuinely talk of a firmly ingrained colonial presence in Guinea until the end of the 19th century, despite the fact that Guineans and Portuguese had been in touch with one another for the preceding five centuries. In 1879, the long-standing combined administration of Cape Verde and Guinea-Bissau came to an end, and the two countries thereafter became independent colonial possessions under distinct administrations: Cape Verde and Portuguese Guinea. On the other hand, competition among European nations for

dominance over Guinea and its surrounding areas only heated up. Ulysses S. Grant, the president of the United States at the time, arbitrated the conflict between Portugal and England over who should have possession of Bolama in 1870 and ruled in Portugal's favor. This brought an end to the decades-long disagreement between the two countries. The Franco-Portuguese conflict over the Casamance territory, on the other hand, was finally settled in favor of France in May of 1886. (Portuguese Historical Musuem, 2017).

The struggle for supremacy around Guinea-Bissau took place within the context of the larger scramble for Africa that marked the 1884–85 Berlin Congress. This scramble for Africa was characterized by English demands for Guinean region to the south and French demands along the east and north. The people of Guinea were not in any way consulted over these issues; as a result, they rebelled, revolted, and mutinied using all means at their disposal whenever it was feasible to do so (Philip, 2004). The Berlin Congress had demanded the evidence of "effective occupation," but in an effort to meet this criteria, the ruthless "pacification" campaign of Capt. Joo Teixeira Pinto was launched from 1913 to 1915. This operation was supported by an African mercenary army. The executions and harsh punitive actions exacted by the Portuguese and their mercenaries caused a great uproar among the native people of the region. Despite this, the Portuguese maintained their pacification attempts against the Guinean populace, particularly the coastal peoples, and conducted three more major campaigns of pacification, one of which was carried out in January 1936. (Mendy, 2003).

In 1956, a group of people from Cape Verde established the African Party for the Independence of Guinea and Cape Verde (Partido Africano da Independência da Guiné e Cabo Verde; PAIGC), which would go on to become the national liberation party for both Guinea and Cape Verde (Lobban, 2018). The most renowned of its leaders was Amilcar Cabral, a revolutionary theorist who was excellent in his field. However, in August 1959 the Portuguese reacted to a dockworkers' strike with violence, massacring and injuring numerous demonstrators. This was the event that convinced the PAIGC that only a rurally based armed resistance would be sufficient to end the colonial and fascist regime. Initially, the goal of the PAIGC was to achieve independence through peaceful means of protest. Following a period of time spent on military training and political preparations, the PAIGC began its armed campaign in January 1963 and has shown consistent military advancement

since that time. Both offensive and defensive military action were made possible with the establishment of the People's Revolutionary Armed Force (Forças Armadas Revolucionárias do Povo) and the Local Armed Forces (Forças Armadas Locais), respectively. The Portuguese colonial army, led by General António de Spnola, was only able to hold out in the country's major cities and heavily fortified bases after being faced with large numbers of Portuguese soldiers and their accompanying military technology. Despite this, the PAIGC was able to gain control of approximately two-thirds of the country. Cabral was murdered on January 20, 1973, yet despite this, the country's independence was proclaimed on September 24, 1973. This event, together with the protracted battles that were taking place in Portugal's other overseas provinces, caused a situation that ultimately resulted in a successful coup attempt in Lisbon on April 25, 1974. Soon after taking office, Portugal's new administration initiated negotiations with nationalist organizations in African countries (Global Security).

On September 10, 1974, Guinea-Bissau attained its full independence; Cape Verde did so the next year. Both Lus de Almeida Cabral and Aristides Pereira, revolutionary comrades from Cape Verde, went on to become the first presidents of their respective countries, Guinea-Bissau and the Republic of Cape Verde. Lus de Almeida Cabral was a half brother of Amilcar Cabral. Joo "Nino" Vieira was promoted to the position of commander-in-chief of Guinea-armed Bissau's forces (Hodges, 1979; Cabral, 1966).

On April 12, a military coup took place, and as a result, Gomes Junior, temporary President Perreira, and other government leaders were taken into custody. The leaders of the coup have indicated that they do not want to remain in power and that their action was required to deter foreign intervention in the nation as well as to fight purported intentions to shrink Guinea-military. Bissau's (Berlie, 2014). Next a widespread backlash against the coup, Guinea-Bissau was expelled from the African Union (AU) the following week. Even though the Economic Community of West African States (ECOWAS) denounced the coup, it did engage in negotiations with the leaders of the coup in an effort to restore constitutional order in the nation (Souaré, 2014).

### **3.2.2 Sectors**

Agriculture is the mainstay of the Guinea-Bissau economy, accounting for over 80% of the country's Gross Domestic Product (GDP) and employing a higher percentage of the population (World Bank, 2021). According to a report by the Food and Agriculture Organization (FAO) of the United Nations (UN), the country is well-endowed with fertile soil and abundant rainfall, making it well-suited for agriculture (FAO, 2019). The crops grown in the country include cassava, rice, maize, groundnuts, and palm oil (World Bank, 2021). Despite its strong agricultural sector, the majority of the population still lives in poverty, due to a lack of access to markets and resources (FAO, 2019).

Another significant sector of the economy of Guinea-Bissau is the fishing industry, which accounts for a significant portion of the country's exports (World Bank, 2021). The country's coast is dotted with several small fishing villages, and its rich waters are home to a variety of fish species, including shrimp and sardines (FAO, 2019). However, the fishing industry in Guinea-Bissau has been impacted by overfishing, and the country is working to conserve its fish stocks and improve the sustainability of its fishing practices (FAO, 2019). The economy of Guinea-Bissau has faced a number of challenges in recent years. One of the biggest issues is the lack of infrastructure and basic services, such as electricity, water, and healthcare (World Bank, 2021). According to a report by the World Bank, the country also has a high level of corruption, which has impacted investment and economic growth (World Bank, 2021). Additionally, the country has been plagued by political instability, which has further hindered economic progress (World Bank, 2021).

### **3.3 Economic integration**

One of the main ways that Guinea-Bissau has sought to increase economic integration is through regional cooperation. The country is a member of several regional organizations, including the Economic Community of West African States (ECOWAS) and the West African Economic and Monetary Union (UEMOA). These organizations promote trade and investment between member states, encouraging economic integration and the creation of a single market for goods, services, and people (Aguilar and Stenman, 1997).



The benefits of regional cooperation for Guinea-Bissau are significant. Increased trade and investment among member states can help to boost economic growth and create jobs, while reducing poverty. Furthermore, regional cooperation can help to improve the business climate, encouraging investment and entrepreneurship. This can help to create new economic opportunities, promoting inclusive and sustainable growth. Additionally, regional cooperation can help to increase the country's competitiveness, making it easier for businesses to participate in regional and international trade (United Nations).

However, there are also challenges associated with regional cooperation in Guinea-Bissau. One of the main challenges is the lack of infrastructure and transportation networks, which limit the country's ability to participate in regional and international trade. Another challenge is corruption, which affects the country's ability to attract investment and implement effective policies. Furthermore, political instability, including frequent coups and military interventions, has resulted in a lack of investor confidence, making it difficult for businesses to invest in the country (Deen-Swarray *et al.*, 2014).

Another way that Guinea-Bissau is seeking to increase economic integration is through improved infrastructure and transportation. The country has limited infrastructure and transportation networks, which limit its ability to participate in regional and international trade. However, there have been efforts to improve these networks, including the construction of new roads, ports, and airports. Improved infrastructure and transportation can help to increase the country's competitiveness and promote economic growth. For example, improved transportation networks can help to reduce the cost of doing business and make it easier for businesses to participate in regional and international trade. Additionally, improved infrastructure can help to increase access to markets, making it easier for businesses to sell their products and services to a larger customer base (Bouraima *et al.*, 2020).

Guinea-Bissau is the subject of a number of initiatives designed to boost investment and foster economic growth. In an effort to make the environment more favorable for business, the government has taken a number of steps, including simplifying laws and cutting down on red tape. In addition, the nation has made efforts to enhance the state of security, which

has been a significant barrier to investment in the country in the recent past (BTI Transformation Index, 2022).

## 4 Practical Part

### 4.1 Descriptive analysis

The author is basing her practical part on the dataset collected from The World Bank, which is available in Table below.

**Table 1, dataset for the analysis**

Year	GDP, billion USD	Unemployment, %	Inflation, %	Exchange rate, domestic currency to USD	FDI, net inflow in million USD
	<i>yt</i>	<i>x1t</i>	<i>x2t</i>	<i>x3t</i>	<i>x4t</i>
1991	0.257150374	6.18900013	57.5952848	282.1069088	2.0899999
1992	0.226313444	6.302000046	69.5836364	264.6918008	5.83
1993	0.236880822	6.350999832	48.1081661	283.1625795	3.2999999
1994	0.235620044	6.360000134	15.1763474	555.2046957	0.43
1995	0.253966922	6.336999893	45.3653084	499.1484259	0.04
1996	0.270419779	6.388999939	50.734055	511.5524303	1.03
1997	0.378370046	6.413000107	49.1009236	583.6693724	11.4791088
1998	0.206457544	6.353000164	8.01375519	589.9517746	4.4071382
1999	0.224446664	6.315000057	-2.0863051	615.4733493	0.730876613
2000	0.37109551	6.247000217	8.63632095	710.207977	0.702270863
2001	0.392621386	6.297999859	3.34812266	732.3976933	0.395613596
2002	0.417806667	6.375999928	3.30012175	693.7132265	3.545253689
2003	0.477458599	6.368000031	-3.5025855	579.8974262	4.005503687
2004	0.532062927	6.25	0.8833027	527.3380323	1.915633352
2005	0.587029054	6.210999966	3.32919923	527.2583626	8.69246809
2006	0.592365688	6.140999794	1.95473718	522.4256249	17.88712356
2007	0.696910811	6.056000233	4.61743772	478.6337185	18.77011749
2008	0.868154709	5.892000198	10.4600731	446.0000414	6.630074028
2009	0.83012647	5.895999908	-1.6513973	470.2934233	18.8902
2010	0.849878424	6.080999851	2.5178514	494.7942622	26.2402
2011	0.849878424	3.378000021	5.04610226	471.2486257	25.02404739
2012	1.099818652	3.467999935	2.1305458	510.5563385	6.624917193
2013	0.98927123	3.457999945	1.20712556	493.8996239	19.6397038
2014	1.046087418	3.499000072	-1.5092446	493.7573299	28.85272769
2015	1.054915645	3.487999916	1.47672049	591.211698	18.57549945
2016	1.048229629	3.512000084	1.50312056	592.6056151	14.2217
2017	1.179004941	3.539999962	1.69111462	580.6567496	15.69119795
2018	1.350177128	3.598999977	0.3813247	555.4464584	20.56381822
2019	1.504630121	3.555999994	0.24660027	585.9110132	71.65868034
2020	1.439638443	4.074999809	1.14000939	575.5860045	20.98972161
2021	1.431758243	4.067999984	2.2424888	554.530675	23.81523833

Source: The World Bank, 2022

The cells marked with the light blue colour represent the pre-accession period and the period of transition – from 1991 to 1997 (pre-accession) and 1997-2000 (transition), further on referred to entirely as the pre-accession period, and the cells marked with light orange colour represent the post-accession period for Guinea-Bissau with data up to 2021 (the latest available). For the variables, the author considers the most fundamental indicators related to economic performance of any state – GDP in nominal prices, unemployment in %, inflation in %, exchange rate in units of domestic currency per one USD and FDI net inflow in million

USD. Further on, the author proceeds to the descriptive analysis of those variables for two different periods when also considering the most fundamental measures of descriptive statistics, which are indicated in the methodology of the work. Consequently, the author is able to get the output indicated in Table 2.

**Table 2, descriptive analysis**

	Period	GDP, billion USD	Unemployment, %	Inflation, %	Exchange rate, domestic currency to USD	FDI, net inflow in million USD
Mean	First Period	0.266072115	6.325600052	35.022749	489.5169314	3.003939428
	Second	0.916086886	4.819523777	1.9434653	546.5791401	17.74425902
Median	First Period	0.245423872	6.343999863	46.736737	533.378563	1.55999995
	Second	0.868154709	4.074999809	1.6911146	527.3380323	18.57549945
Standard Deviation	First Period	0.060122617	0.066561872	24.99756	157.9599047	3.535188963
	Second	0.344851421	1.322713598	2.811653	71.47990846	15.00826093
Coefficient of Variation	First Period	23%	1%	71%	32%	118%
	Second	38%	27%	145%	13%	85%
Min	First Period	0.206457544	6.18900013	-2.086305	264.6918008	0.04
	Second	0.392621386	3.378000021	-3.502586	446.0000414	0.395613596
Max	First Period	0.378370046	6.413000107	69.583636	710.207977	11.4791088
	Second	1.504630121	6.375999928	10.460073	732.3976933	71.65868034
Base Index (Base = 1991 and 2001)	First Period	44%	1%	-85%	152%	-66%
	Second	265%	-35%	-33%	-24%	5920%

Source: own processing based on The World Bank, 2022

When it comes to the average levels of GDP and FDI, it is wise to say that the levels are higher for the post-accession period, which suggests that the economy has saw a great growth in the production and economic output. At the same time, the levels of unemployment for the post-accession period, as well as the level of inflation are significantly lower, which also suggests that the accession to ECOWAS helped the country to improve its economic performance in terms of macroeconomic variables. Yet, it is wise to say that the currency depreciated over time, but it is a natural process, especially for developing countries and countries of Africa, as they constantly compete with each other when fighting for being more attractive to foreign investors and potential trading partners. For sure, it is rather hard to remain competitive with an ever-appreciating domestic currency, so the situation with the depreciation seems to be acceptable.

On the contrary, it is surely enough possible to suggest that the development of indicators became more volatile and unstable, according to the coefficient of variation. Yet, it is possible to say that this high volatility is mostly caused by positive dynamic in all variables, where the GDP was increasing alongside with the level of FDI, and unemployment with inflation were rapidly decreasing. In addition to that, the comparison of minimum with maximum values for the pre-accession and the post-accession periods underpin the author's

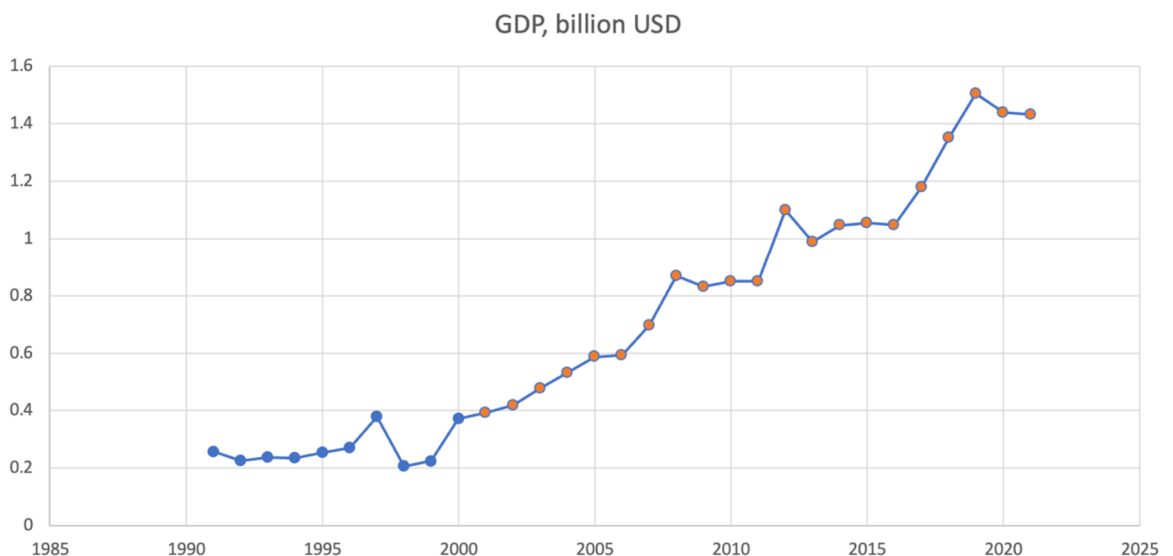
belief that the situation for the post-accession period for Guinea-Bissau became significantly more favorable in terms of economic performance.

Finally, base index for every variable shows tremendous number of changes, as well as it shows astonishingly good magnitude of changes, where for some indicators, such as FDI, the increment in 2021 compared to 2001 for the post-accession period was equal to 5920%, which suggests that the country became significantly more attractive for foreign investors, so the accession to ECOWAS was surely enough a positive event in the history of Guinea-Bissau, according to the descriptive analysis.

## 4.2 Time series analysis

In this chapter, the author analyzes the development of selected indicators over the years and compares the performance for the pre-accession period with the post-accession one. First, the author starts with the GDP variable expressed in nominal terms, whose development over time is shown in Figure 1.

**Figure 1, GDP, billion USD**



Source: own processing based on The World Bank, 2022

With the pre-accession period for Guinea-Bissau being indicated by blue scatter points and orange ones for the post-accession period, it is pretty evident that the country made a huge leap forward in the total value of the GDP. Indeed, the country's GDP is expressed in nominal terms, so it is not adjusted to inflation and it should be increasing all the same, but

regardless of that fact, it is pretty visible that the country's GDP was diminishing for the pre-accession period even despite a high level of inflation, so the economic improvement in terms of growth for Guinea-Bissau after the accession to ECOWAS is more than obvious. Then, the author proceeds to the variable of unemployment expressed in percentage points, whose development is indicated in Figure 2.

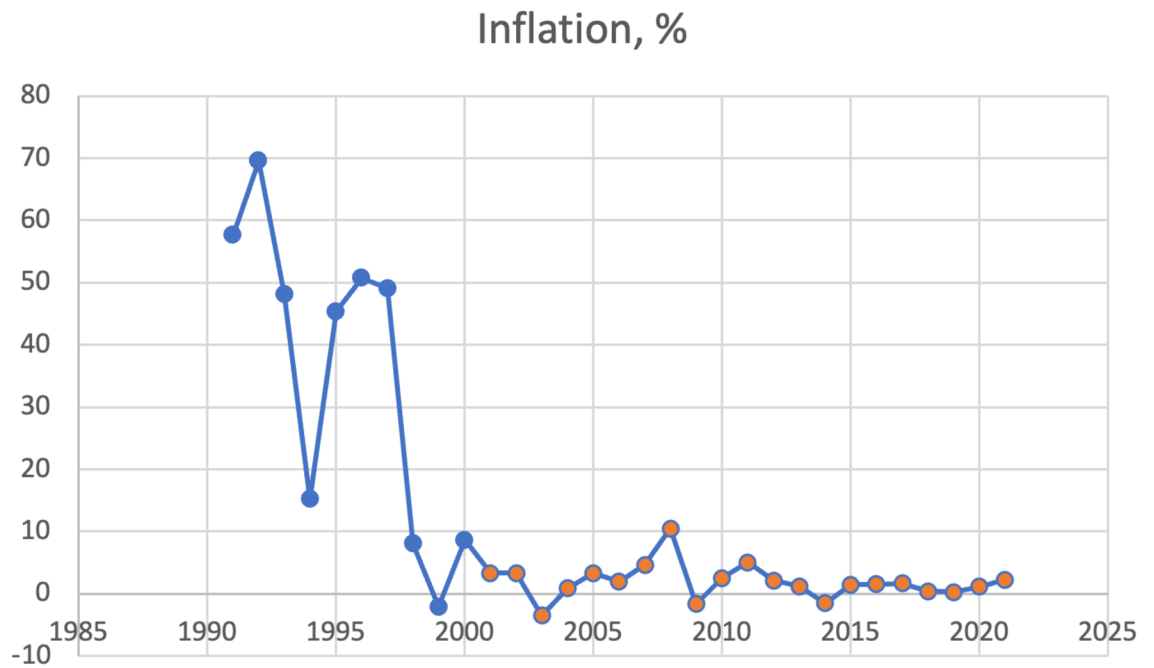
**Figure 2, unemployment, %**



Source: own processing based on The World Bank, 2022

Based on the development of unemployment, it is possible to suggest that there is an obvious improvement during the post-accession period, but this improvement happened after the end of the transition period after the accession and right after the end of the Great Recession. Yet, the statistics seem to be rather surprising, but it still allows the author to conclude that there is an obvious improvement for the post-accession period. The author proceeds to the dynamic of inflation, which is available in Figure 3.

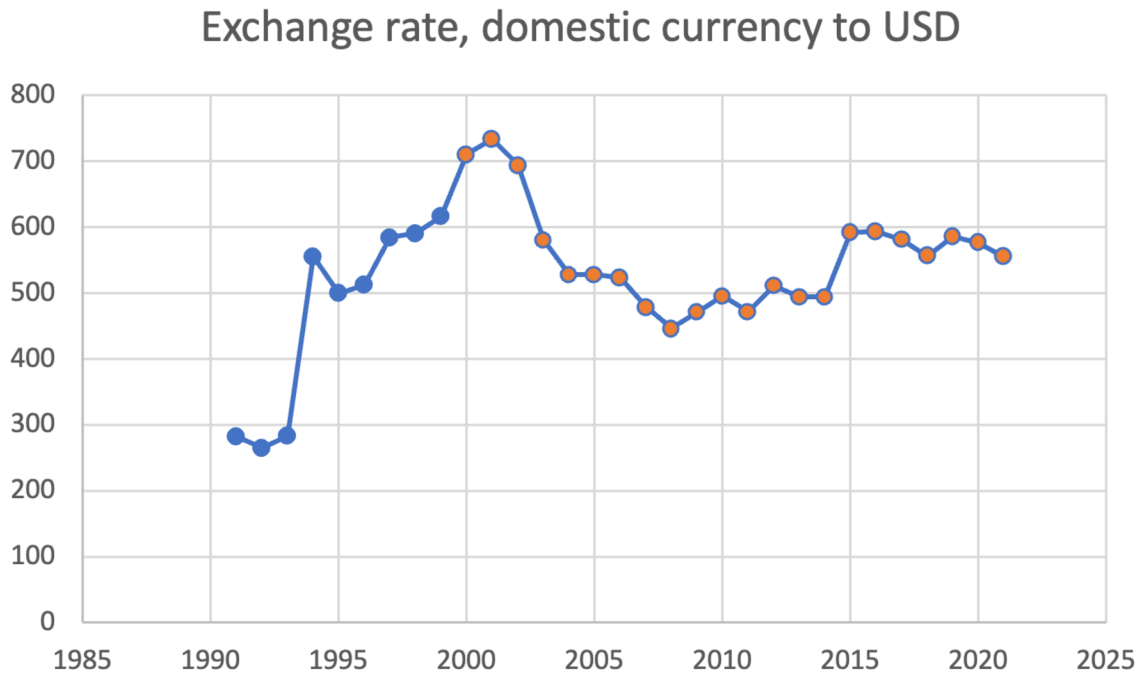
**Figure 3, inflation, %**



Source: own processing based on The World Bank, 2022

From being a country experiencing periods of hyperinflation during the pre-accession period, the country managed to tackle the problem of inflation and even started to experience the phenomenon of deflation, which is also not good but compared to the situation with hyperinflation, seems more favorable. All in all, the author suggests that there is an obvious improvement during the post-accession period, which is another good point suggesting that the accession was a very good decision. The author continues with the third variable – exchange rate, which is indicated in Figure 4.

**Figure 4, exchange rate, domestic currency to USD**

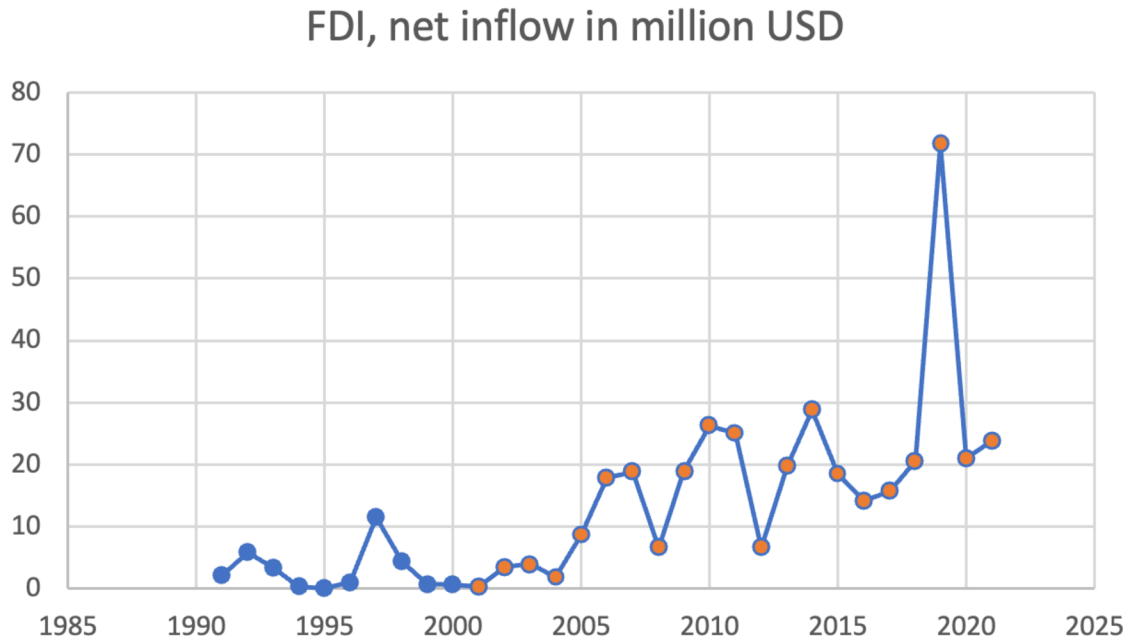


Source: own processing based on The World Bank, 2022

Based on the nature of the development of the variable, it seems that the Central Bank was able to take the situation with the exchange rate under control and all fluctuations are to some extent controlled by the Central Bank with the help of national reserves that are used for either valuation or devaluation of the domestic currency. The situation for the post-accession period seems more appealing once more. Finally, the author proceeds to the last variable – FDI net inflow in million USD indicated in Figure 5.



**Figure 5, FDI net inflow in million USD**



Source: own processing based on The World Bank, 2022

Clearly, when comparing the overall level of FDI between two periods, it becomes crystal clear that the country became significantly more popular among foreign investors as the level of FDI skyrocketed over the course of the years following the accession to the ECOWAS.

#### 4.2.1 Pre-accession period

### 4.3 Linear regression analysis

For the second analytical method selected by the author, she focuses on the creation of a linear regression for 2 periods – from 1991 until 2000 and from 2000 until 2010, where the following model will be created:

$$y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + U_e$$

- $X_1$  represents unemployment measured in percentages. Unemployment is used according to the methodology of the ILO – where the method used captures people who are not currently working, but are available for working. The assumption is that unemployment will have a negative sign since unemployment is negatively correlated with the GDP.

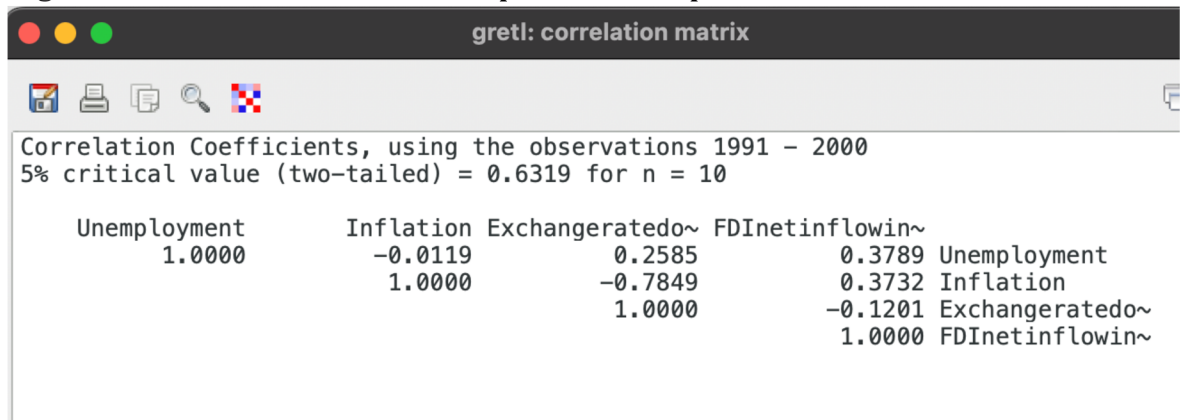
- $X_2$  represents inflation in percentages according to the CPI index. The assumption is that the inflation can have either sign since according to some sources and studies, there is evidence to support both situations depending on the level of inflation.
- $X_3$  represents exchange rate in domestic currency per one USD and the assumption is that in the case of Guinea-Bissau, this variable will be a negative one since the country is importing the overwhelming majority of imports needed for the domestic production. Also, appreciate of domestic currency will lead to the fact that the country's imports will be more expensive, which is likely to have a positive effect on the country's GDP.
- $X_4$  represents foreign direct investment net inflow in million USD and the author believes that this variable will have a positive coefficient since more investments made into a given economy inevitably leads to larger production of the country
- $U_\epsilon$  represents a stochastic component of the econometric model.
- $\beta_{1,2,3,4}$  are parameters of independent variables and they will be estimated using the OLS method applied in Gretl.
- $\beta_0$  is an intercept term.

Apart from original assumptions about the signs of coefficients, the author also assumes absence of multicollinearity, autocorrelation and heteroscedasticity and presence of normality of residuals with fully linear parameters.

#### **4.3.1 Pre-accession Period**

Below, the author presents the correlation matrix for the pre-accession period:

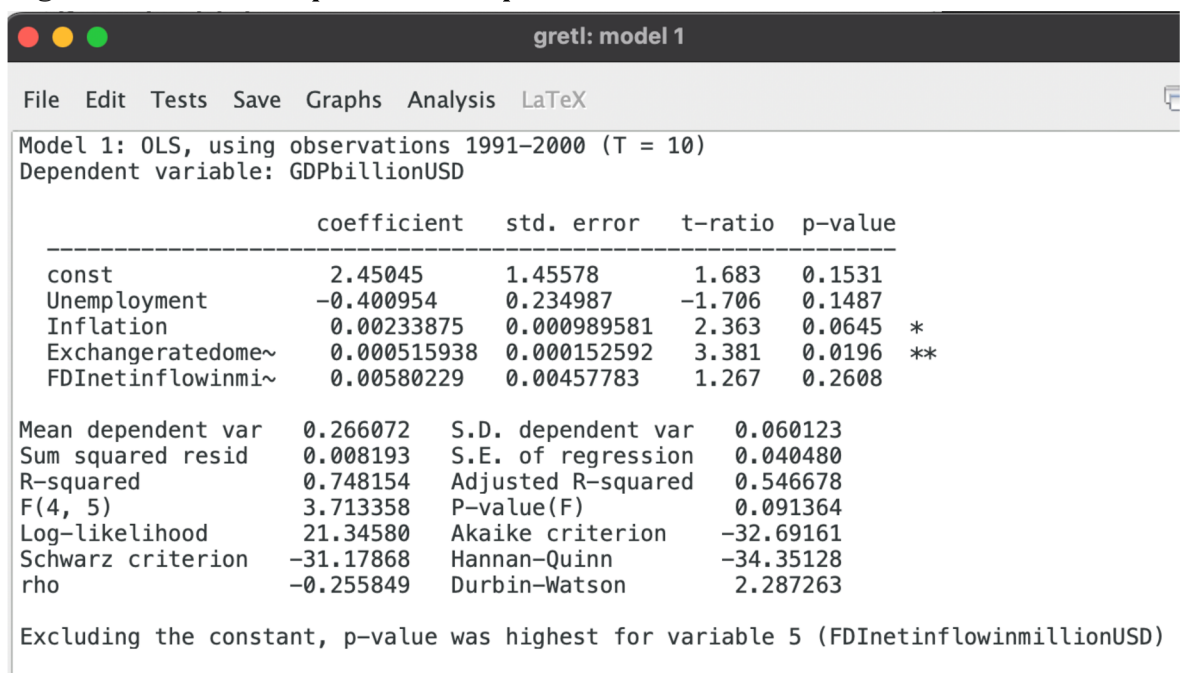
**Figure 6, correlation matrix for the pre-accession period**



Source: own calculations

The correlation between x3 and x2 is high (negative 0.78), but yet it is not enough to claim the presence of multicollinearity as the author sets the boundary of 0.8 as the cutting point, so there is no multicollinearity, and the author can proceed to the estimation:

**Figure 7, OLS for the pre-accession period**



Source: own calculations

Based on the output:

$$yt = 2.45 - 0.4x1t + 0.0023x2t + 0.005x3t + 0.005x4t + Ue$$

The following can be concluded:

- When unemployment increases by 1%, the GDP of Guinea-Bissau decreases by 0.4 billion USD, which seems perfectly justifiable from the economic point of view.

- When inflation increases by 1%, the GDP of Guinea-Bissau increases by 0.0023 billion USD, which can also be justified by the fact that the author considers a nominal variable in her research.
- When the exchange rate depreciates by 1 domestic currency unit per American dollar, the GDP of Guinea-Bissau increases by 0.00051 billion USD, which is also logical due to the fact that depreciation causes a surge in exports and subsequently, a surge in the total GDP.
- When the FDI increases by 1 million USD, the GDP of Guinea-Bissau increases by 0.005 billion USD, which is fully logical.

The quality of the model is 0.74 according to the ordinary R square and 0.54 according to the adjusted R square, which is not really good.

According to t tests at the significance level of 5%, the only significant variable is exchange rate, which might suggest that over the pre-accession period, Guinea-Bissau was a very export-oriented country. Finally, the author runs a series of econometric tests:

**Figure 8, econometric tests for the pre-accession period**

```
White's test for heteroskedasticity -
Null hypothesis: heteroskedasticity not present
Test statistic: LM = 9.48864
with p-value = P(Chi-square(8) > 9.48864) = 0.302764

Test for normality of residual -
Null hypothesis: error is normally distributed
Test statistic: Chi-square(2) = 0.663251
with p-value = 0.717756

LM test for autocorrelation up to order 1 -
Null hypothesis: no autocorrelation
Test statistic: LMF = 0.246316
with p-value = P(F(1, 4) > 0.246316) = 0.645716
```

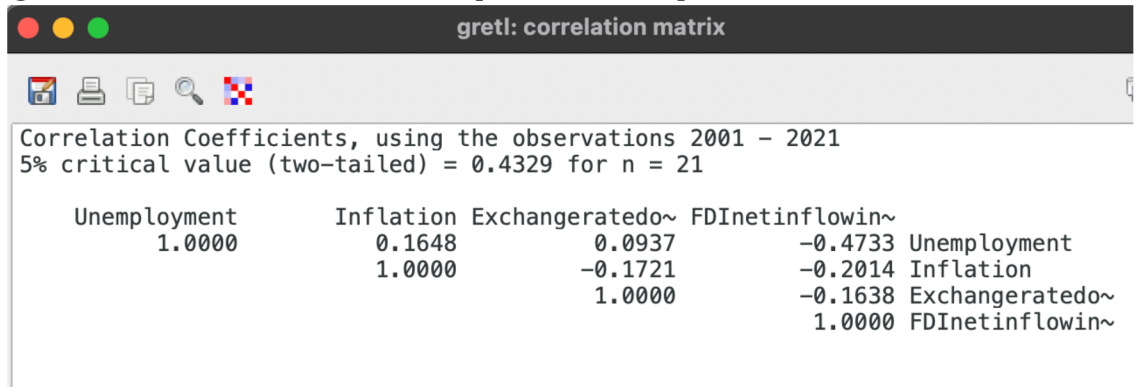
Source: own calculations

Based on those tests, it is possible to say that autocorrelation is absent, as well as heteroscedasticity, and normality is present on the level of alpha equal to 5%. The model obeys the rules of linear regression estimation and does not violate any econometric assumptions.

### 4.3.2 Post-accession Period

Then, the author conducts the very same procedure for the post-accession period before continuing to the elaboration on the results of the bachelor thesis. First, she starts from the correlation matrix:

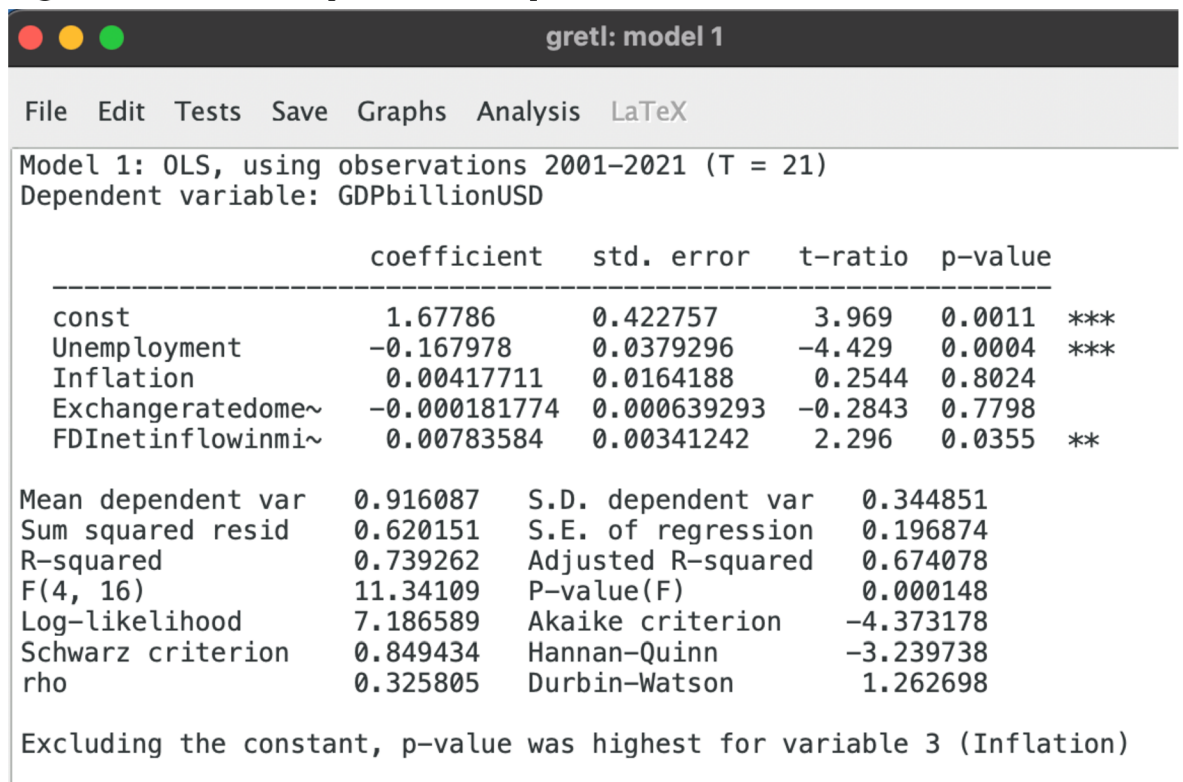
**Figure 9, correlation matrix for the post-accession period**



Source: own calculations

Once again, no multicollinearity is identified. The author proceeds to the OLS for the post-accession period:

**Figure 10, OLS for the post-accession period**



Based on the output:

$$y_t = 1.67 - 0.16x_{1t} + 0.004x_{2t} - 0.00018x_{3t} + 0.007x_{4t} + U_e$$

The following can be concluded:

- When unemployment increases by 1%, the GDP of Guinea-Bissau decreases by 0.16 billion USD, which seems perfectly justifiable from the economic point of view.
- When inflation increases by 1%, the GDP of Guinea-Bissau increases by 0.004 billion USD, which can also be justified by the fact that the author considers a nominal variable in her research.
- When the exchange rate depreciates by 1 domestic currency unit per American dollar, the GDP of Guinea-Bissau decreases by 0.00018 billion USD, which suggests that the Central Bank changed the policy it was pursuing.
- When the FDI increases by 1 million USD, the GDP of Guinea-Bissau increases by 0.007 million USD, which is fully logical.

The quality of the model is 0.73 according to the ordinary R square and 0.67 according to the adjusted R square, which is not really good.

According to t tests at the significance level of 5%, there are two significant variables – unemployment and FDI.

#### **Figure 11, econometric tests for the post-accession period**

White's test for heteroskedasticity –  
Null hypothesis: heteroskedasticity not present  
Test statistic: LM = 20.2347  
with p-value =  $P(\text{Chi-square}(14) > 20.2347) = 0.122913$

Test for normality of residual –  
Null hypothesis: error is normally distributed  
Test statistic: Chi-square(2) = 3.08021  
with p-value = 0.214359

LM test for autocorrelation up to order 1 –  
Null hypothesis: no autocorrelation  
Test statistic: LMF = 2.12112  
with p-value =  $P(F(1, 15) > 2.12112) = 0.165893$

Source: own calculations

Based on those tests, it is possible to say that autocorrelation is absent, as well as heteroscedasticity, and normality is present on the level of alpha equal to 5%. The model obeys the rules of linear regression estimation and does not violate any econometric assumptions.

## **5 Results and Discussion**

### **5.1 Effect of Accession**

To begin with, it is worth to say that the author is able to provide a definite answer to the question of whether the accession to the ECOWAS helped Guinea-Bissau to improve its economic situation or not. According to the author's analysis and dynamics of selected macroeconomic variables, notably the nominal GDP, unemployment, inflation (CPI percentage change), official exchange rate and FDI, it is surely enough possible to say that the country was able to boost its economy significantly after joining the ECOWAS in 1997. When it comes to assessing the change of dynamics for particular variables, it is possible to say that for some variables, the effect came into force significantly quicker, such as for the variable of unemployment, that has indicated a big improvement right after the moment when the country was accepted to the ECOWAS, which is a direct consequence of the rule of free movement of people to enter, reside and establish economic activities in the territory of any member state for citizens of the member-states, which is quite similar to the principle of four freedoms that the European Union has. The same was mentioned by Adepoju, 2010, who stressed the importance of the free movement of labor not only for the stimulation of an economic growth, as the author of this very thesis did, but the author of the article has also highlighted the positive effect that this aspect has on the strengthening of integration and ties between communities sharing the same economic block.

Then, when talking about the economic growth and evidently a positive change in the economic development of the country, some other authors do not fully agree with the author of the thesis, such as Ndiaye, 2020, who believes that alongside the accession to the ECOWAS and the economic surge that happened at the beginning of the 00s, the inequality has also risen alongside with the poverty rate. According to the author, the region is still under high influence of France, since the overwhelming majority of countries participating in the block are former French colonies, so the former metropole still retains its imperialistic ambitions and partially controls the CFA Franc, which became a domestic currency for the majority of them. If one considers Ndiaye's research, such as the author of the thesis, then it is also possible to assume that the accession to the ECOWAS did not significantly help domestic population to boost their wealth, but the economic growth is being achieved with



the help of foreign direct investments by international organizations and wealthy individuals from the surrounding countries, who were given a good opportunity to venture into a new environment and exploit it, which is also mentioned by Barry, 2007.

Yet, the author still believes that what happened to the country after its accession to the ECOWAS cannot anyhow be compared to what was happening before. In fact, the accession to the ECOWAS and economic growth might have both lead to the rise in inequality and disparities, but this primarily comes from bad legislation and unpreparedness of the domestic government to embrace changes because proper policies were not implemented, and the domestic framework might have not been prepared beforehand. However, the accession to the ECOWAS increased the ties with the neighboring countries and also believed to have improved the institutional structure of the country, so the country received a foundation on which they could develop a solid economy, because now they have partners to help them and improve not just the economic growth, but also economic and social development. What is more, as Yaya, 2014 and Yabo, 2010 both mentioned it, the role of ECOWAS in peacemaking and promotion of democracy is high, which underpins the author's suggestion that benefits behind the country's accession to the ECOWAS are not just pecuniary ones, but there are also implicit ones.

## **5.2 Future Partnership**

Of course, when talking about the future partnership of future cooperation between countries and trading blocks, it is wise to consider that fruitful partnership will only be possible under condition of healthy environment not just for the country being analyzed, but also for other member-states, since this is something that helps blocks to develop and become more and more powerful and integrated. The problem, however, with the ECOWAS is that the region is still being under high influence of the former metropole for the majority of countries, being France and it is also being devastated by the ongoing number of conflicts and coups d'état, which are quite traditional for the countries of the region. Of course, those instabilities are partially explained by the fact that the countries of the region are really vulnerable to external fluctuations and changes, so whenever something goes wrong, the probability of a similar accident for those countries is higher, which is also mentioned by Strienbinger, 2016 and Afolabi, 2009.

Apart from all that, it is wise to consider that benefits that an accession to any economic block brings are much more numerous and significant right after the accession has happened, so the author recommends conducting an analysis with a similar methodology to the one used by the author for later time period in order to understand if the positive dynamics of the country's economy persisted in the second decade of the 21<sup>st</sup> century.

## **6 Conclusion**

To conclude, the author can say that the author is able to answer the question stated in her goals and methodology. In fact, the country's accession to the ECOWAS has brought numerous benefits in the form of improved performance for all macroeconomic variables considered, being unemployment, inflation rate, official exchange rate, foreign direct investment and the nominal GDP. According to the author's analysis and reflections that were produced based on empirical research, the economic performance for the post-accession and post-transition period is significantly better and the accession to the ECOWAS has strengthened the cooperation between countries in the West-African Region. What is more, the accession to the block has stimulated the promotion of peace in the country and improved the institutional framework of Guinea-Bissau, according to the analysis of relevant publications and author's own analysis.

Contrary to that, the author also considers negative effects of the accession and one of that being that it has presumably increased disparities and inequality in the society and had also presumably made the country more dependent on the block and other partners, who are themselves can be considered to be under the influence of their former metropole – France.

## 7 References

- Adedeji, A. (2012). The travails of regional integration in Africa. The EU and Africa: From Eurafrique to afro-Europa, pp.83-104.
- Adepoju, A., Boulton, A., & Levin, M. (2010). Promoting integration through mobility: Free movement under ECOWAS. *Refugee Survey Quarterly*, 29(3), 120-144.
- Adetula, V.A., Bereketeab, R. and Jaiyebo, O. (2016). Regional economic communities and peacebuilding in Africa: the experiences of ECOWAS and IGAD. Nordiska Afrikainstitutet.
- Afolabi, B. T. (2009). Peacemaking in the ECOWAS region: challenges and prospects. *Conflict trends*, 2009(2), 24-30.
- African Development Bank. (2020). West Africa Regional Integration Strategy Paper. Retrieved from <https://www.afdb.org/en/documents/west-africa-regional-integration-strategy-paper-2020-2025-0>
- Aguilar, R. and Stenman, Å. (1997). Guinea-Bissau: from structural adjustment to economic integration. *Africa Spectrum*, pp.71-96.
- Banik, N. and Yoonus, C.A. (2012). Trade as an answer to sustainable economic growth—The ECOWAS story. *Global Business Review*, 13(2), pp.311-326.
- Barry, B. S. (Ed.). (2007). *Conflict, livelihoods, and poverty in Guinea-Bissau* (Vol. 88). World Bank Publications.
- Barry, B.S. ed. (2007). *Conflict, livelihoods, and poverty in Guinea-Bissau* (Vol. 88). World Bank Publications.
- Berlie, J.A. (2014). Guinea-Bissau 2014 elections. *Asian Education and Development Studies*.
- Bordalo, A.A. and Savva-Bordalo, J. (2007). The quest for safe drinking water: an example from Guinea-Bissau (West Africa). *Water research*, 41(13), pp.2978-2986.
- Bulmer, S. (1994). Institutions and policy change in the European communities: the case of merger control. *Public Administration*, 72(3), pp.423-444.
- Cabral, A. (1966), January. The weapon of theory. In Address delivered to the first Tricontinental Conference of the Peoples of Asia, Africa and Latin America held in Havana in January.

Cuyvers, L. and Soeng, R. (2013). The impact of the EU Generalized System of Preferences on exports and GSP utilization by Asian and Latin American countries. *Journal of International Trade Law and Policy*, 12(1), pp.80-97.

Deen-Swararray, M., Adekunle, B. and Odularu, G., 2014. Policy recipe for fostering regional integration through infrastructure development and coordination in West Africa. *Regional economic integration in West Africa*, pp.29-56.

Dinerstein, E., Olson, D., Joshi, A., Vynne, C., Burgess, N.D., Wikramanayake, E., Hahn, N., Palminteri, S., Hedao, P., Noss, R. and Hansen, M. (2017). An ecoregion-based approach to protecting half the terrestrial realm. *BioScience*, 67(6), pp.534-545.

ECOWAS CEDEAO Available at: <https://ecowas.int/basic-information/>

FAO. (2018). *World Food and Agriculture—Statistical Pocketbook*.

Food and Agriculture Organization (FAO) of the United Nations (UN). (2019). *Agriculture in Guinea-Bissau*. Retrieved from <https://www.fao.org/countryprofiles/index/en/?iso3=GNB&subj=5>

Global Security.org Available at: <https://www.globalsecurity.org/military/world/para/paigc.htm>

Hodges, T. (1979). Five Years of Independence. *Africa Report*, 24(1), p.4.

Igwe, P.A., Ochinanwata, C. and Madichie, N.O. (2021). The “Isms” of Regional Integration: What Do Underlying Interstate Preferences Hold for the ECOWAS Union?. *Politics & Policy*, 49(2), pp.280-308.

Jebuni, C.D. (1998). The Role of ECOWAS in Trade Liberalization. In *Trade Reform and Regional Integration in Africa*. International Monetary Fund. pp.489-506

Ladan, P. and Tawfiq, M. (2021). *ECOWAS Treaty And State Sovereignty: Redefining Constitutional Parameters Of Nationhood*. Available at SSRN 4020809.

Lobban, R.A. (2018). *Cape Verde: Crioulo colony to independent nation*. Routledge.

*Mangroves of western and central Africa*. (2007). No. 26. UNEP/Earthprint.

McKenna, A. ed. (2010). *The History of Western Africa*. Britannica Educational Publishing.

McRae, D. (2012). MFN in the GATT and the WTO. *Asian J. WTO & Int'l Health L & Pol'y*, 7, p.1.

Mendy, P.K. (2003). Portugal's civilizing mission in colonial Guinea-Bissau: Rhetoric and reality. *The International journal of African historical studies*, 36(1), pp.35-58.

Ndiaye, M. F. (2020). Persistent inequality in Guinea-Bissau: The role of France, the CFA Franc, and long-term currency imperialism. *African Review of Economics and Finance*, 12(1), 123-151.

Ndlovu-Gatsheni, S. (2013). Decolonial epistemic perspective and pan-African unity in the 21st century. *The African union ten years after*, pp.385-409.

O'Toole, T. and Baker, J.E. (2005). *Historical dictionary of Guinea*. Scarecrow Press.

Okom, M.P., Otu, M.T. and Lloyd, C. (2017). Free Movement of Goods and Trade Liberalization in the Economic Community of West African States (Ecowas): A Critical Evaluation. *International Journal of Innovative Research and Development*, 6(2).

Okoro, A.S., Ujunwa, A., Umar, F. and Ukemenam, A. (2020). Does regional trade promote economic growth? Evidence from Economic Community of West African States (ECOWAS). *Journal of Economics and Development*, 22(1), pp.131-147.

Oloruntoba, S.O. (2016). ECOWAS and regional integration in West Africa: From state to emerging private authority. *History Compass*, 14(7), pp.295-303.

Philip J. Havik. (2004). *Silences and soundbites: The gendered dynamics of trade and brokerage in the pre-colonial Guinea Bissau region (Vol. 2)*. LIT Verlag Münster.

Portuguese Historical Musuem, (2017). Available at: [https://portuguesemuseum.org/?page\\_id=1808&category=4&exhibit=&event=141](https://portuguesemuseum.org/?page_id=1808&category=4&exhibit=&event=141)

RESOLVE Ecoregions dataset (2017). The surface computed through the mapping service retrieved from: <https://ecoregions2017.appspot.com/>

Rodney, W. (1965). Portuguese attempts at monopoly on the Upper Guinea Coast, 1580–1650. *The Journal of African History*, 6(3), pp.307-322.

Sarker, R. and Jayasinghe, S. (2007). Regional trade agreements and trade in agri-food products: evidence for the European Union from gravity modeling using disaggregated data. *Agricultural Economics*, 37(1), pp.93-104.

Socio-Economic Impact Analysis of COVID-19 on Guinea-Bissau. United Nations

Souaré, I.K. (2014). The African Union as a norm entrepreneur on military coups d'état in Africa (1952–2012): an empirical assessment. *The Journal of Modern African Studies*, 52(1), pp.69-94.

Spencer, G. (2019). More Details. *Civil Engineering—ASCE*, 55(7), pp.30-30.

Striebinger, K. (2016). When pigs fly: ECOWAS and the protection of constitutional order in events of Coups d'Etat. In *Roads to Regionalism* (pp. 197-214). Routledge.

The World Bank Database . Indicators. (2022). Retrieved January 14, 2023, from <https://data.worldbank.org/indicator>

Ukaigwe, J. (2016). ECOWAS law. Springer International Publishing.

United Nations. United Nations Sustainable Development Cooperation Framework For Guinea-Bissau 2022-2026. Retrieved from: [https://unsdg.un.org/sites/default/files/2021-11/GuineaBissau\\_Cooperation\\_Framework\\_2022to2026pdf.pdf](https://unsdg.un.org/sites/default/files/2021-11/GuineaBissau_Cooperation_Framework_2022to2026pdf.pdf)

Vasconcelos, M.J., Cabral, A.I., Melo, J.B., Pearson, T.R., Pereira, H.D.A., Cassamá, V. and Yudelman, T. (2015). Can blue carbon contribute to clean development in West-Africa? The case of Guinea-Bissau. *Mitigation and Adaptation Strategies for Global Change*, 20, pp.1361-1383.

World Bank. (2021). Guinea-Bissau Overview. Retrieved from <https://data.worldbank.org/country/guinea-bissau>

Yabi, G. O. (2010). The role of ECOWAS in managing political crisis and conflict. *FES Peace and Security Series, Abuja*.

Yang, Y. and Gupta, S. (2005). Regional trade arrangements in Africa: Past performance and the way forward.

Yaya, B. H. (2014). ECOWAS and the promotion of Democratic Governance in West Africa. *Journal of International Relations and Foreign Policy*, 2(1), 85-102.

# **BACHELOR THESIS ASSIGNMENT**

Aleksandra Tomshina

Economics Policy and Administration

Business Administration

Thesis title

**Impact of ECOWAS Trade Agreement on the Economy of Guinea-Bissau**

---

## **Objectives of thesis**

The main aim of the bachelor thesis is to evaluate the impact of the regional trade agreement (ECOWAS) on the selected country (Liberia). The research question is whether the country's economic situation has improved.

## **Methodology**

The bachelor thesis consists of three parts.

The first part is theoretical and will be based on literature and articles. It will define regional integration and ECOWAS.

The second part is practical and is the most crucial part of the thesis. This part of the thesis will use statistical methods to evaluate the current position of the chosen country.

The third part is the final, concluding the results of the previous parts and making recommendations.



## The proposed extent of the thesis

30 – 40 pages

## Keywords

ECOWAS, Guinea-Bissau, foreign trade, trend analysis, tariffs, disparities, integration, GDP

---

## Recommended information sources

- Gibb, Richard. 2009. "Regional Integration and Africa's Development Trajectory: Metatheories, Expectations and Reality." *Third World Quarterly* 30 (4): 701–21. <https://doi.org/10.1080/01436590902867136>.
- Okoro, Agwu Sunday, Augustine Ujunwa, Farida Umar, and Angela Ukemenam. 2020. "Does Regional Trade Promote Economic Growth? Evidence from Economic Community of West African States (ECOWAS)." *Journal of Economics and Development* 22 (1): 131–47. <https://doi.org/10.1108/jed-10-2019-0039>.
- Oloyede, Betsy M., Evans S. Osabuohien, and Jeremiah O. Ejemeyovwi. 2021. "Trade Openness and Economic Growth in Africa's Regional Economic Communities: Empirical Evidence from ECOWAS and SADC." *Heliyon* 7 (5): e06996. <https://doi.org/10.1016/j.heliyon.2021.e06996>.

---

## Expected date of thesis defence

2022/23 SS – FEM

## The Bachelor Thesis Supervisor

doc. Ing. Irena Benešová, Ph.D.

## Supervising department

Department of Economics

Electronic approval: 10. 3. 2023

**prof. Ing. Lukáš Čechura, Ph.D.**

Head of department

Electronic approval: 15. 3. 2023

**doc. Ing. Tomáš Šubrt, Ph.D.**

Dean

Prague on 15. 03. 2023