



# **The CFA Franc and Economic Sustainability in Sub-Saharan Africa: *An Assessment of Long-Term Development Impacts***

Francine Tagoudi Silatsa Mafougang  
University of Wales Trinity Saint David  
London Campus  
United Kingdom  
[2306963@student.uwtsd.ac.uk](mailto:2306963@student.uwtsd.ac.uk)

Kingsley Obi Omeihe  
Centre for European Labour Market  
School of Business and Creative Industries  
University of the West of Scotland Paisley  
Scotland, United Kingdom  
[king.omeihe@uws.ac.uk](mailto:king.omeihe@uws.ac.uk)

Rexon Nting  
University of Wales Trinity Saint David  
London Campus  
United Kingdom  
[rexon.nting@uwtsd.ac.uk](mailto:rexon.nting@uwtsd.ac.uk)

## Abstract

This paper examines the CFA franc, a currency used by fourteen Sub-Saharan African countries, focusing on its differential impact on their long-term economic sustainability. While acknowledging the CFA franc's historical context and its peg to the Euro via the “*operations account*” with France (Nubukpo, 2007), the study moves beyond descriptive accounts to provide original empirical evidence on the CFA franc's influence on key sustainability indicators. It employs a mixed-methods approach, combining quantitative analysis with qualitative insights, to address the research problem. Quantitative analysis involves statistical processing of macroeconomic data, while qualitative analysis incorporates relevant theoretical frameworks. The analysis examines the impact of the CFA franc on key macroeconomic indicators and explores the broader implications for economic sustainability. Specifically, it assesses the relationship between the CFA franc's monetary policies and outcomes such as real GDP growth, inflation, and trade diversification within the Franc Zone Economies. The analysis employs panel data econometrics to compare these outcomes with a control group of non-CFA franc African economies, controlling for structural similarities. The findings reveal novel insights into the CFA franc's complex role in shaping sustainable development trajectories, highlighting specific trade-offs between monetary stability and long-term economic and political resilience. Based on these findings, the article proposes innovative policy recommendations for enhancing sustainability within the Franc Zone Economies, including mechanisms for aligning monetary policy with sustainable development goals.

### *Key words:*

CFA franc, Franc Zone Economies, CEMAC, WAEMU, ECO, monetary policy, regional integration, economic development of Sub-Saharan African countries

## Introduction

The interconnectedness of the global financial landscape presents both opportunities and challenges. Financial instability and exchange rate volatility have underscored the importance of regional monetary unions as a means of mitigating risks (Zhao and Kim, 2009). Monetary unions, such as the Eurozone and the CFA franc (CFAF) zone, can offer benefits like reduced transaction costs, decreased exchange rate uncertainty, and enhanced policy credibility. The CFAF, a significant regional monetary system, plays a crucial role in this context. Originating in the colonial era, the CFAF is used in fourteen Sub-Saharan African (SSA) countries, collectively known as the Franc Zone Economies (henceforth FZ). Pegged initially to the French franc and later to the Euro, the CFAF's existence is closely tied to the “*operation account*” mechanism (Nubukpo, 2007), with France playing a prominent role. This link has placed the CFAF at the centre of discussions about post-colonial legacies and integration into the global financial system.

The origins of the FZ can be traced to the global economic crisis of 1929 and the subsequent restructuring of the international monetary and trade system. Protectionism and competitive devaluations led France to establish an imperial economic zone, designed to foster economic complementarity between the colonial power and its colonies (Yao, 2011). This zone formalized economic relations between France and its colonies following decrees in 1939. By 1958, the FZ oversaw the redefinition of the status of former French colonies in Africa, which had gained autonomy. In 1960, most FZ countries opted to maintain the CFAF and remain within the zone. Guinea (Migani, 2012) and Mali (briefly) exited, introducing their own currencies. Equatorial Guinea and Guinea-Bissau subsequently joined. Currently, the FZ involves France and fifteen SSA countries (French Treasury, 2024), organized into three monetary zones: the West African Economic and Monetary Union (WAEMU or UEMOA in French), the Central African Economic and Monetary Union (CAEMU or CEMAC in French), and the Comoros (**Annex 1**). While the Comoros is often included, its currency is distinct from the CFAF. This article focuses specifically on the CFAF-using countries in WAEMU and CEMAC.

The stability of the FZ is often attributed to its monetary cooperation with France, through the “*operations account*” mechanism. This mechanism guarantees a fixed parity between the CFAF and the Euro, providing a form of monetary stability insurance underwritten by the French Treasury. In return, central banks within the zone deposit a significant portion (half) of their foreign exchange reserves with the French Treasury. This arrangement has been a subject of debate. Some argue that the CFAF's fixed parity regime may not be optimal (Owoundi, 2001); while others contend that the emphasis on monetary stability masks restrictive policies that primarily serve European interests (Tinel, 2016). Critics often focus on the CFAF's impact on development, questioning its compatibility with the needs of FZ members. The political dimensions of the currency are also debated, with some critiquing the historical power dynamics in Franco-African relations, characterizing the operational methods as a form of neo-colonial

influence (Sylla, 2019). Conversely, others view this relationship as an expression of multilateral solidarity (Hugon, 1999).

This research aims to comprehensively assess the factors influencing the long-term viability and resilience of the FZ. This involves analysing the complex interplay of monetary policy, fiscal management, trade dynamics, and broader socioeconomic factors that contribute to or detract from sustainable development. The research seeks to move beyond simplistic narratives surrounding the CFAF and delve into the nuanced realities facing these diverse economies, ultimately providing evidence-based insights to inform policy decisions. This research is guided by several key objectives: evaluating the multifaceted role of the CFAF within the FZ; identifying the key determinants of economic sustainability within the FZ; assessing the specific economic vulnerabilities of the FZ; analysing the impact of global financial shifts on the sustainability of the FZ; and exploring and evaluating policy options for enhanced sustainability.

Key questions that emerge from these objectives include: What are the key factors influencing the long-term economic sustainability of the FZ? How does the CFAF arrangement contribute to or hinder the sustainability of member economies? What are the most pressing challenges and opportunities facing the FZ in the context of evolving global economic conditions? How does the fixed exchange rate regime of the CFAF affect the ability of member countries to respond to economic shocks? Does the CFAF arrangement promote or constrain regional integration? What are the potential benefits and costs of alternative monetary arrangements? How does the “*operations account*” mechanism influence economic sovereignty?

The following section provides a structured analysis of the CFAF, beginning with a foundational overview of its historical origins within the French colonial system and its core structural characteristics, including its fixed exchange rate regime and the pooling of reserves, before evaluating the CFAF zone's attributes through the lens of Optimal Currency Area (OCA) theory, critically examining the extent to which member economies meet the theoretical criteria for a successful currency union. The analysis then explores the complex relationship between the CFAF and the “*France-Afrique*” system, investigating arguments about the currency's role in perpetuating post-colonial economic relations, and presents a comparative analysis of the divergent perspectives on the CFAF's impact on economic stability and development within the FZ. Finally, it delves into the arguments of key proponents regarding the CFAF's contribution to macroeconomic stability, fiscal discipline, and regional integration, and critically re-evaluates the counter-narratives that challenge the dominant pro-CFAF discourse, focusing on issues of African economic sovereignty and developmental impact.

## The CFAF: Historical Context and Key Features

Established in 1945 during colonisation, the CFAF, initially the “*franc of the French Colonies of Africa*,” has undergone several name changes, reflecting the evolving political landscape. It was renamed the “*franc of the French African Community*” in 1958. Following the independence of the African nations, it became known as the “*franc of the African Financial Community*” in the WAEMU and the “*franc of the Financial Cooperation in Africa*” in the CEMAC. However, its defining characteristic remains its fixed exchange rate regime, lauded for its stability (Gulde and Tsangarides, 2008) and altered only once in 1994.

The CFAF operates based on four core principles established in 1973: fixed parity with the Euro, guaranteed convertibility by the French Treasury, free transferability within the zone, and centralization of foreign exchange reserves (French Treasury, 2024). These principles have shaped the monetary landscape of the FZ and are central to understanding its dynamics. However, recent reforms within WAEMU (French Treasury, 2019) have initiated a transition towards the ECO currency, along with the cessation of mandatory centralization of reserves and France's withdrawal from WAEMU governance structures. Despite these changes, the fixed parity with the Euro and the convertibility guarantee remains, highlighting the on-going emphasis on macroeconomic stability. This raises questions about the extent of real change and whether the ECO truly represents a departure from the CFAF's historical constraints. It is important to note that the 1973 agreement still applies in WAEMU, as the new agreement is not yet in force.

Diallo (2002) emphasizes the intrinsic link between currency and state sovereignty. Currency is not merely a means of payment but represents a core element of a nation's self-determination, its ability to exercise control over its economic destiny. This perspective highlights the significance of a nation's capacity to manage its currency, to assign value, and to determine its exchange rate policies. In the context of the CFAF, the decision of 14 African states to relinquish control over their currency to France raises critical questions about the implications for their economic sovereignty. Diallo argues that ceding this fundamental power represents a significant compromise of a nation's autonomy and its ability to shape its economic future.

This perspective has fuelled a robust debate, particularly among pan-Africanist and neo-pan-Africanist scholars, who view the CFAF as a vestige of colonial power structures, an imperial currency designed to perpetuate economic dependence (Nubukpo, 2005). The CFAF's arrangement, where monetary policy is effectively controlled by France, is seen as hindering the ability of these African nations to pursue independent economic policies tailored to their specific needs and development goals. This critique often draws upon the theory of OCA, which provides a framework for evaluating the costs and benefits of monetary unions and raises questions about the suitability of the FZ for its member states. The on-going debate surrounding the CFAF underscores the complex relationship between currency, sovereignty, and economic development in the context of Africa's post-colonial experience.

## The CFAF Zone and the Theory of OCA

The theory of Optimal Monetary Zones (OMZs), pioneered by Robert Mundell in the 1960s (Ott and Vignolles, 2012), provides a framework for evaluating the suitability of a geographic area for a monetary union. Mundell (1961) proposed that an OMZ is formed when the benefits of fixed exchange rates or a common currency outweigh the costs of losing independent monetary policy. Key conditions include potential gains for each member state and labour mobility to offset the loss of exchange rate flexibility as an adjustment tool. This theory has been further developed by other economists. McKinnon (1963) emphasized the importance of openness to trade, arguing that highly open economies benefit more from fixed exchange rates due to their impact on price levels and resource allocation (Bourginat, 1992; Laurent Joye, 2014). Kenen (1969) highlighted the role of diversified production structures in mitigating economic shocks, drawing on the principle of the “*Law of Large Numbers*” (Kenen, 1998). Cooper (1977) and Kindelberger (1986) added the criterion of homogeneity of national preferences, suggesting that countries with similar economic structures and policy goals are better suited for monetary unions.

Empirical studies on the FZ, however, have challenged its adherence to the criteria for an OMZ. One key critique centres on the limited mobility of production factors, particularly labour, within the zone. Ondo Ossa (2000) and Nubukpo (2013) highlight the restrictive effect of differing regulations and bureaucratic hurdles on labour mobility, hindering the efficient allocation of resources and economic adjustment. While Musugaie (2010) suggests some degree of labour mobility within Africa, particularly in West Africa, he acknowledges that conflicts, political tensions, and bureaucratic obstacles limit its effectiveness. The application of the McKinnon model, which emphasizes openness to trade, further reveals inconsistencies within the FZ. Ondo Ossa (2000) found that both the foreign trade-to-GDP ratio and the intra-zone trade-to-foreign trade ratio were low in the years before the Euro peg, suggesting that greater exchange rate flexibility might be more beneficial. Diop (2017) points to the non-diversified production structures and export bases of FZ, hindering intra-regional trade and potentially limiting the benefits of a monetary union.

The vulnerability of FZ to external shocks, particularly commodity price fluctuations, has also been highlighted. Kenkouo (2014) found that while short-term oil price increases did not significantly affect CEMAC countries, long-term inflationary effects were evident. Guillaumont and Jeanneney (2017) examined the impact of the sharp drop in oil prices, demonstrating its significant consequences for the balance of payments and public finances of CEMAC countries. They argue that this vulnerability necessitates strict adjustment policies and raises the risk of devaluation if fiscal imbalances are not addressed. These critiques collectively challenge the FZ's compliance with OMZ criteria and raise concerns about the long-term sustainability of the CFAF arrangement in the face of economic shocks and limited internal adjustment mechanisms.

## The CFAF and the “*France-Afrique*” System

The term “*France-Afrique*” (in French) encapsulates the complex and often controversial relationship between France and its former African colonies. It signifies a shift from direct colonial rule to a more nuanced form of influence, where political and economic ties remain strong despite formal independence (Gounin, 2009). This invisible umbilical cord connecting France and its former colonies has its roots in the early post-independence era, shaped by figures like Jacques Foccart, who played a pivotal role in shaping French policy in Africa. The underlying logic of “*France-Afrique*”, critics argue, is to perpetuate a system that benefits French interests while ensuring the cooperation of African elites (Médard, 1990). This has involved interference in political affairs, including influencing elections and supporting leaders favourable to France (Médard, 2002). Those who challenged this system, like Thomas Sankara in Burkina Faso, often faced repercussions (Verschave, 1999).

The economic dimension of “*France-Afrique*” is equally significant. France's colonial past involved the exploitation of African resources (Capron, 2009), and critics argue that this pattern continues through neo-colonial economic arrangements (Sylla, 2019). Agreements favouring French companies in sectors like mining, energy, and trade (Noirot, 2012) are seen as perpetuating economic dependence. This economic nationalism (Capron, 2009) prioritizes French interests and limits opportunities for African economies to diversify and develop independently. The CFAF itself is viewed as a tool within this system, serving to maintain French influence and limit the economic autonomy of member states (Migani, 2012). Its fixed parity with the French Franc, and later the Euro, is seen as benefiting French companies and hindering the competitiveness of African businesses (Noirot, 2012). This critique highlights the historical and political context surrounding the CFAF and raises concerns about its role in perpetuating neo-colonial economic structures.

To maintain the CFAF's fixed parity with the Euro and ensure unlimited convertibility, FZ countries have implemented various policies that arguably benefit external actors' more than local economies. A key example is the liquidity management policy, where restrictive measures are used to control inflation and maintain currency stability (Nubukpo, 2011). This approach, known as competitive disinflation, relies on manipulating interest rates to keep inflation in check, often targeting a low rate of 2% (Tadenyo, 2015). The underlying logic is based on a monetary view of inflation, where controlling the money supply is prioritized (Sall, 2016). This has led to restrictive monetary policies that limit credit availability and potentially hinder domestic investment and economic growth (Dembo Toe and Hounkpatin, 2007; Trinnou and Igue, 2015).

While this approach prioritizes monetary stability, critics argue that it comes at the expense of local economic development. Tighter credit conditions can stifle investment and favour foreign investors with access to cheaper capital (Tadenyo, 2015; Nubukpo, 2012). This reinforces dependence on external financing and potentially limits the growth potential of FZ. Furthermore,

the use of Official Development Assistance is seen as perpetuating neo-colonial dynamics. Tied aid mechanisms, where aid is linked to the purchase of goods and services from the donor country (Noirot, 2012; Hugon, 2007), can further reinforce dependence and limit the development of local industries. This critique suggests that the CFAF system, with its focus on external stability and restrictive policies, may hinder the development of a self-sufficient and diversified economic base in FZ countries.

## The CFAF: Competing Perspectives on Stability and Development in the FZ

The CFAF's role in the FZ has fuelled a passionate debate, with proponents and critics offering contrasting perspectives on its impact. The CFAF has garnered support within academic and economic discourse, with several authors, economists and policymakers emphasizing its role in promoting monetary stability, fostering regional integration, and facilitating economic development in WAEMU and the CEMAC. Boughton (1991) provided a seminal analysis in *"The CFA Franc Zone: Currency Union and Monetary Standard,"* underscoring the advantages of this currency union. His work, published by the International Monetary Fund (IMF), specifically notes the inherent discipline it imposes on member states, the enhanced credibility it offers in international financial markets and the resulting stability in their international competitiveness. This perspective suggests that the CFAF acts as an anchor, promoting sound macroeconomic management and fostering a stable environment for trade and investment. Echoing this view, French economist Christian de Boissieu has extensively discussed the merits of the CFAF, emphasizing its crucial role in maintaining monetary stability and fostering economic integration within the FZ. De Boissieu's analysis highlights how the currency peg to a stronger currency, like the Euro, enforces fiscal discipline among member countries, which in turn bolsters investor confidence (Bowman, 2011).

This emphasis on stability is further supported by policymakers from within the FZ. Alassane Ouattara, the President of Côte d'Ivoire and former high-ranking official at the IMF, has been a strong defender of the CFAF system, stressing its fundamental role in ensuring monetary stability as a crucial precondition for sustained economic growth and poverty reduction within the member states. Similarly, former Governors of the central banks of the CFAF zones, Charles Konan Banny (former Governor of the Central Bank of West African States) and Jean-Félix Mamalepot (former Governor of the Bank of Central African States), have endorsed the CFAF system, highlighting its crucial role in ensuring monetary stability within their respective regions and fostering broader regional economic integration through a stable and credible monetary framework. However, some analyses offer a more nuanced view, acknowledging the CFAF's benefits while also advocating for reforms. Economist and author Papa Demba Thiam, for instance, offers a more nuanced view on the CFAF. While acknowledging its role in effectively reducing inflation and maintaining external credibility for the member economies, he advocates for cautious and well-considered reforms to the system. This perspective suggests that while the

CFAF has provided a degree of stability, there is room for improvement and adaptation to better serve the evolving needs of the FZ.

Tidiane Kinda (2005), an economist with the IMF, examined the progress of regional integration within the WAEMU following the 1994 CFAF devaluation in his 2005 working paper “*Ten Years After the CFA Franc Devaluation: Progress Toward Regional Integration in the WAEMU*” (van den Boogaerde and Tsangarides, 2005). The study, published by the IMF, analysed economic convergence, trade patterns, and competitiveness among member states, concluding that sustained political commitment remains crucial for achieving full economic union. Kinda's expertise gained through his various roles at the IMF, informs his perspective on the CFAF's impact on regional economic dynamics.

## Critical Perspectives on the CFAF: A Re-evaluation

The CFAF has faced substantial scrutiny from both African and international scholars, who raise significant concerns about its implications for the economic sovereignty and developmental trajectories of African nations. This critique centres on the argument that the currency, rather than fostering economic growth, acts as a constraint, perpetuating unequal power dynamics. A key figure in this critical discourse is Ndongo Samba Sylla, whose work challenges the conventional understanding of the CFAF. Sylla (2017), in “*The CFA Franc: French Monetary Imperialism in Africa*,” posits that the CFAF system functions as a mechanism of neo-colonial control. He contends that by tying African economies to French monetary policies, the CFAF significantly curtails their ability to pursue independent economic strategies and achieve genuine autonomy. This perspective is reinforced by his collaborative work with Fanny Pigeaud (2021) in “*Africa's Last Colonial Currency: The CFA Franc Story*.” Their analysis focuses on specific structural elements of the CFAF, namely its fixed exchange rate, the facilitation of capital mobility, and the centralization of foreign reserves. Pigeaud and Sylla argue that these features are not neutral technicalities but rather serve to impede autonomous economic development in African nations while simultaneously benefiting French economic interests.

The Cameroonian economist Tchoundjang Pouemi Joseph, in his influential work “*Monnaie, Servitude et Liberté*” (1980), provided an early and incisive critique of the CFAF and the broader international monetary system. Pouemi's analysis focused on how these systems can perpetuate economic dependence and hinder genuine development in African nations. In addition, economist Rémy Herrera (2022) contributes to this critical analysis by examining the CFA and Comorian francs through the lens of neo-colonialism. In “*La monnaie. Du pouvoir de la finance à la souveraineté des peuples*,” Herrera argues that these currencies are designed to serve French and broader European financial interests, often at the expense of aligning with the actual economic needs and priorities of African populations.

The political sphere has also witnessed challenges to the CFAF. Ousmane Sonko, Senegalese politician and former tax official who is serving as the 16<sup>th</sup> prime minister of Senegal since 2024, for instance, has voiced concerns about the currency's inherent rigidity. His advocacy for a more flexible currency regime stems from the belief that it would allow African economies to better absorb external economic shocks and enhance their export competitiveness, thus fostering more sustainable and equitable development and, if necessary, exploring the creation of a national currency for Senegal (Reuters, 2024). In addition, Kako Nubukpo has consistently called for a fundamental reform of the CFAF system, emphasizing the limitations it imposes on the monetary sovereignty of African nations (The Africa Report, 2022). His work, including *“Une solution pour l’Afrique: du néoprotectionnisme aux biens communs,”* promotes alternative economic models, such as neo-protectionism and fair trade, as pathways towards greater economic empowerment for African countries. Furthermore, the international academic community has also engaged with this critical perspective. Rahmane Idrissa (2021), in *“Countries without Currency: The CFA Franc,”* delves into the historical and contemporary implications of the currency arrangement. Idrissa's work highlights the ways in which the CFAF both reflects and perpetuates enduring French economic influence within the African continent. Herrera (2022) further reinforces this line of critique, arguing that the structure of the CFA and Comorian francs is fundamentally misaligned with the goals of African economic self-determination, favouring external European interests instead.

## Hypothesis

Hypothesis 1: The CFAF's fixed exchange rate regime has a differential impact on specific dimensions of economic sustainability in the FZ, compared to non-CFAF African economies.

Hypothesis 2: While the CFAF may contribute to lower average inflation in the FZ, it also limits member countries' ability to use monetary policy to address sector-specific inflationary pressures and promote sustainable growth, compared to non-CFAF African economies.

Hypothesis 3: The CFAF's fixed exchange rate regime increases the FZ's vulnerability to external shocks (e.g., commodity price volatility) and hinders the implementation of policies for long-term economic and social resilience, compared to non-CFAF African economies.

## Gap

A significant research gap exists in the lack of robust comparative analyses. While some studies provide valuable insights by comparing the FZ's economic performance to other African economic blocs like the Economic Community of West African States (ECOWAS) and the Southern African Development Community (SADC) (Masson and Pattillo, 2004; Tsangarides et

al., 2006), a more comprehensive approach is needed. Specifically, comparing FZ members to carefully selected comparable countries outside these blocs (Foroutan and Pritchett, 1993; Yeats, 1996) can help isolate the specific impact of the CFAF arrangement on sustainability outcomes.

Methodological limitations present another key challenge. Data availability and reliability for various sustainability indicators, particularly Environmental, Social, and Governance (ESG) aspects, may be scarce or unreliable in some FZ countries, posing challenges for robust analysis. This necessitates the development of innovative data collection and estimation methods. Furthermore, establishing a clear causal link between the FZ and sustainability outcomes is complex due to the interplay of multiple factors. To address this, more rigorous econometric techniques, including panel data analysis and instrumental variable approaches, are needed to isolate the specific impact of the FZ (Devarajan and Rodrik, 1991; Ocampo, 2005).

Beyond these broad gaps, several critical areas remain under-researched, including the FZ's vulnerability to climate change, the role of regional institutions in promoting sustainable development, and the formulation of concrete policy recommendations. Additionally, the historical and political context of the FZ requires more critical examination, particularly regarding its potential perpetuation of neo-colonial economic relationships and dependency on France (Laskaridis and Toporowski, 2016; Mbembe, 2001). The influence of the FZ on power dynamics and economic sovereignty also needs further analysis (Pigeaud and Sylla, 2018; Banerjee, 2003). Finally, exploring alternative monetary and trade arrangements that could better support sustainable and equitable development in the FZ is crucial (Ndikumana, 2016; Chang, 2002).

## Methodology

This study employs a mixed-methods approach to comprehensively analyse the impact of the CFAF on the sustainability of the FZ, integrating quantitative and qualitative research methodologies. To analyse the comparative performance of FZ countries and selected ECOWAS, SADC and the East African Community (EAC) members, a positivist epistemological approach, relying on quantitative methods will be employed. Quantitative analysis will involve collecting data on six key economic and sustainability indicators from 2021 to 2026 for all 14 FZ countries and the four selected comparator countries (Angola, Burundi, The Gambia, and Ghana). These indicators include GDP growth, fiscal balance, inflation, exports, imports, and debt levels. Descriptive statistics and statistical tests will be used to compare the performance of FZ countries with the comparator countries, highlighting key differences and similarities. Data visualisation techniques will be employed to illustrate these comparisons and make the findings more accessible. The primary data source for this analysis is the World Bank's Macro Poverty Outlook report from spring 2024. It is a comprehensive report examines macroeconomic and poverty developments in 148 developing countries across SSA. It is released

biannually, coinciding with the World Bank and IMF's spring and annual meetings. To ensure transparency and accuracy, the data will be presented exactly as published in the report, primarily through screenshots (**Annex 2**).

This paper further utilises a quantitative dataset sourced from the World Bank, covering twenty macroeconomic indicators for fourteen FZ countries from 2003 to 2023. These indicators encompass various aspects of the economies, including Agriculture, forestry, and fishing, value added (% of GDP); Central government debt, total (% of GDP); Exports of goods and services (% of GDP); Final consumption expenditure (% of GDP); External balance on goods and services (% of GDP); Expense (% of GDP); Gross national expenditure (% of GDP); Industry (including construction), value added (% of GDP); Imports of goods and services (% of GDP); Merchandise trade (% of GDP); Net acquisition of financial assets (% of GDP); Revenue, excluding grants (% of GDP); Stocks traded, total value (% of GDP); Tax revenue (% of GDP); Trade (% of GDP); Trade in services (% of GDP); Current account balance (% of GDP); Net lending (+) / net borrowing (-) (% of GDP); Foreign direct investment, net inflows (% of GDP); and Foreign direct investment, net outflows (% of GDP) providing a comprehensive view of their economic structures and performance. To address missing data points in the dataset, a placeholder value was assigned, and a measurable scale was developed to facilitate the transfer of the data from Excel to SPSS for statistical analysis.

Panel data regression and other suitable econometric techniques will be used to estimate the effects of FZ membership on the selected indicators, while accounting for country-specific and time-specific effects. The case studies will be compared to identify patterns, similarities, and differences in the experiences of FZ countries and comparator countries. This comparative case analysis will shed light on how FZ membership, along with other factors, has shaped the economic and sustainability trajectories of these countries.

Qualitative analysis will involve a critical review of existing literature and theoretical frameworks relevant to the research questions (Omeihe and Harrison, 2024).. This will include: a detailed examination of the theory of OCA and its applicability to the FZ, an analysis of Dependency Theory and its relevance to understanding the historical and contemporary economic relationships between France and the FZ countries, and case studies of specific sectors within FZ to provide nuanced insights into the impact of the CFAF.

## Data Aggregation and Descriptive Statistics of the FZ

This analysis initially organises FZ countries according to their respective monetary blocs. For each nation, key economic indicators including real GDP growth, fiscal balance, inflation, exports, imports, and debt levels will be presented for the period spanning 2021 to 2026. Following this, annual averages for each monetary block will be calculated. Finally, a

consolidated annual average for both the CEMAC and WAEMU regions will be determined, providing a comprehensive overview of economic performance.

|                                            | Forecast    |             |             |             |             |             |
|--------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                            | 2021        | 2022        | 2023        | 2024        | 2025        | 2026        |
| Cameroon                                   | 3.3         | 3.6         | 4.0         | 4.3         | 4.5         | 4.6         |
| Central African Republic                   | 1.0         | 0.5         | 0.9         | 1.3         | 1.7         | 1.9         |
| Chad                                       | -1.2        | 2.8         | 4.1         | 2.7         | 3.3         | 2.9         |
| Equatorial Guinea                          | 0.3         | 3.8         | -5.8        | -4.3        | -3.3        | -3.6        |
| Gabon                                      | 1.5         | 3.0         | 2.3         | 3.0         | 2.3         | 2.8         |
| Republic of Congo                          | 1.0         | 1.5         | 1.9         | 3.5         | 3.7         | 3.2         |
| <b>Average real GDP growth CEMAC</b>       | <b>0.9%</b> | <b>2.5%</b> | <b>1.2%</b> | <b>1.7%</b> | <b>2.0%</b> | <b>1.9%</b> |
| Benin                                      | 7.2         | 6.3         | 5.8         | 6           | 6           | 6           |
| Burkina Faso                               | 6.9         | 1.8         | 3.2         | 3.7         | 3.8         | 4.2         |
| Cote d'Ivoire                              | 7.1         | 6.9         | 6.4         | 6.6         | 6.5         | 6.5         |
| Guinea Bissau                              | 6.4         | 4.2         | 4.2         | 4.7         | 4.8         | 4.9         |
| Mali                                       | 3.1         | 3.5         | 3.5         | 3.1         | 3.5         | 4.5         |
| Niger                                      | 1.4         | 11.5        | 1.2         | 6.9         | 4.8         | 4.3         |
| Senegal                                    | 6.5         | 3.8         | 3.7         | 7.1         | 9.7         | 5.7         |
| Togo                                       | 6.0         | 5.8         | 5.4         | 5.1         | 5.4         | 5.6         |
| <b>Average real GDP growth WAEMU</b>       | <b>5.5%</b> | <b>5.4%</b> | <b>4.1%</b> | <b>5.4%</b> | <b>5.5%</b> | <b>5.2%</b> |
| <b>Average real GDP growth CEMAC+WAEMU</b> | <b>3.2%</b> | <b>3.9%</b> | <b>2.6%</b> | <b>3.5%</b> | <b>3.7%</b> | <b>3.5%</b> |

*Real GDP Growth of CEMAC and WAEMU from 2021 to 2026 in %: Trends and Comparisons*

The analysis of real GDP growth within the FZ reveals a pattern of generally low and unstable growth rates. Over the period studied, the FZ's overall economic growth has consistently remained below 4%, averaging around 3%. This finding raises concerns about the FZ's capacity for sustained economic development and challenges the notion that the CFAF fosters robust growth. Furthermore, a comparison of real GDP growth between the two monetary unions within the FZ, CEMAC and WAEMU, highlights significant disparities. CEMAC's growth performance has been particularly weak, with average growth rates consistently below 2.5% and even falling below 1% in 2021. In contrast, WAEMU has exhibited more dynamic growth, averaging above 5% in most years. This disparity underscores the economic heterogeneity within the FZ and suggests that the CFAF's impact on growth may vary across member countries. The fact that the FZ's economic growth has consistently hovered around 3% and has not surpassed 4% during this period suggests that the economies of the FZ have not experienced significant development over the years. This lacklustre performance, particularly within CEMAC, underscores the need for structural reforms and policies that can stimulate more robust and equitable economic expansion within the FZ.

|                                               | Forecast     |              |              |              |              |              |
|-----------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                               | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         |
| Cameroon                                      | -2.9         | -1.1         | -0.8         | -0.7         | -0.8         | -0.7         |
| Central African Republic                      | -6.0         | -5.3         | -3.5         | -3.1         | -1.8         | 0.1          |
| Chad                                          | -2.2         | 5.0          | 1.3          | -1.4         | -1.2         | -2.1         |
| Equatorial Guinea                             | 2.6          | 13.0         | 7.3          | 1.2          | -2.4         | -3.7         |
| Gabon                                         | -1.8         | -0.8         | -1.0         | -3.8         | -5.9         | -5.0         |
| Republic of Congo                             | 1.2          | 7.9          | 3.6          | 3.9          | 3.2          | 3.1          |
| <b>Average fiscal balance<br/>CEMAC</b>       | <b>-1.5%</b> | <b>3.1%</b>  | <b>1.1%</b>  | <b>-0.6%</b> | <b>-1.4%</b> | <b>-1.3%</b> |
| Benin                                         | -5.7         | -5.5         | -4.5         | -3.8         | -3.0         | -3.0         |
| Burkina Faso                                  | -7.5         | -10.6        | -6.4         | -5.6         | -4.7         | -4.4         |
| Cote d'Ivoire                                 | -4.8         | -6.6         | -5.2         | -4.0         | -3.0         | -3.0         |
| Guinea Bissau                                 | -5.9         | -6.1         | -7.6         | -4.8         | -4.0         | -4.0         |
| Mali                                          | -4.9         | -4.8         | -4.8         | -4.1         | -3.2         | -2.9         |
| Niger                                         | -3.4         | -6.8         | -3.9         | -2.4         | -2.6         | -2.7         |
| Senegal                                       | -6.3         | -6.6         | -6.6         | -4.8         | -3.0         | -3.0         |
| Togo                                          | -4.7         | -8.3         | -6.6         | -6.2         | -3.0         | -3.0         |
| <b>Average fiscal balance<br/>WAEMU</b>       | <b>-5.4%</b> | <b>-6.9%</b> | <b>-5.7%</b> | <b>-4.4%</b> | <b>3.3%</b>  | <b>-3.2%</b> |
| <b>Average fiscal balance<br/>CEMAC+WAEMU</b> | <b>-3.4%</b> | <b>-1.9%</b> | <b>-2.3%</b> | <b>-2.5%</b> | <b>0.9%</b>  | <b>-2.2%</b> |

*Fiscal Balance of CEMAC and WAEMU from 2021 to 2026 in %: Persistent Deficits and Sustainability Concerns*

An analysis of the fiscal balance within the FZ reveals a persistent pattern of deficits. Both CEMAC and WAEMU, the two monetary zones within the FZ, have consistently experienced fiscal deficits throughout the period under consideration. CEMAC's fiscal balance has been particularly volatile, swinging from a deficit of -1.5% in 2021 to a surplus of 3.1% in 2022, before falling back into deficit in 2023 and remaining there for the forecast period. WAEMU's fiscal balance has been consistently negative, reaching a worrying low of -6.9% in 2022. While a slight improvement is projected for 2025, deficits are expected to persist. The overall picture for the FZ is one of persistent fiscal imbalances. Despite a brief projected improvement in 2025, the FZ is expected to continue experiencing deficits, with expenditures exceeding revenues. This raises concerns about the long-term sustainability of public finances in the region and the potential need for fiscal consolidation measures. The persistent deficits in both CEMAC and WAEMU highlight the challenges facing FZ in managing their public finances. This fiscal vulnerability may limit their ability to invest in key development priorities and could potentially undermine their long-term economic stability.

|                                        | Forecast    |             |             |             |             |             |
|----------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                        | 2021        | 2022        | 2023        | 2024        | 2025        | 2026        |
| Cameroon                               | 2.5         | 6.3         | 7.4         | 7.0         | 5.7         | 4.9         |
| Central African Republic               | 4.3         | 5.6         | 3.0         | 4.7         | 4.6         | 3.8         |
| Chad                                   | 1.0         | 5.8         | 4.1         | 3.9         | 3.6         | 3.0         |
| Equatorial Guinea                      | -0.1        | 4.9         | 2.4         | 4.0         | 2.5         | 2.2         |
| Gabon                                  | 1.1         | 4.3         | 3.7         | 2.4         | 2.3         | 2.2         |
| Republic of Congo                      | 2.0         | 3.0         | 4.3         | 3.8         | 3.0         | 3.0         |
| <b>Average inflation CEMAC</b>         | <b>1.8%</b> | <b>4.9%</b> | <b>4.1%</b> | <b>4.3%</b> | <b>3.6%</b> | <b>3.1%</b> |
| Benin                                  | 1.7         | 1.4         | 2.8         | 2.0         | 2.0         | 2.0         |
| Burkina Faso                           | 3.9         | 14.1        | 0.7         | 2.8         | 2.5         | 2.2         |
| Cote d'Ivoire                          | 4.2         | 5.2         | 4.4         | 3.6         | 3.0         | 2.0         |
| Guinea Bissau                          | 3.3         | 7.9         | 8.0         | 4.5         | 2.0         | 2.0         |
| Mali                                   | 4.0         | 9.7         | 2.1         | 2.5         | 2.3         | 2.0         |
| Niger                                  | 2.9         | 3.9         | 3.7         | 3.5         | 3.7         | 3.5         |
| Senegal                                | 2.2         | 9.7         | 6.1         | 3.0         | 2.0         | 2.0         |
| Togo                                   | 4.5         | 7.5         | 5.3         | 3.5         | 3.0         | 2.7         |
| <b>Average inflation WAEMU</b>         | <b>3.3%</b> | <b>7.4%</b> | <b>4.1%</b> | <b>3.1%</b> | <b>2.5%</b> | <b>2.3%</b> |
| <b>Average inflation CEMAC + WAEMU</b> | <b>2.5%</b> | <b>6.1%</b> | <b>4.1%</b> | <b>3.7%</b> | <b>3%</b>   | <b>2.7%</b> |

*Inflation of CEMAC and WAEMU from 2021 to 2026 in %: Trends and Relationship with Economic Growth*

An analysis of inflation trends within the FZ reveals a period of significant price increases, followed by a gradual moderation. In 2021, both CEMAC and WAEMU, the two monetary zones within the FZ, experienced relatively low inflation rates. However, inflation surged in 2022, reaching a peak of 6.1% for the FZ. This inflationary spike was particularly pronounced in WAEMU, where inflation reached a high of 7.4%. Since 2022, inflation has gradually moderated, although it remains elevated compared to 2021 levels. In CEMAC, inflation has persisted above 4% since 2022, with a slight projected decrease to 3.1% in 2026. WAEMU has seen a more significant decline, with inflation falling to 4.1% in 2023 and projected to remain between 3% and 3.7% in the coming years. Overall, the FZ has experienced a period of heightened inflationary pressures, followed by a gradual easing. While inflation is projected to remain above the 2.5% level observed in 2021, the downward trend suggests that price pressures are moderating. However, the persistence of relatively high inflation rates raises concerns about potential impacts on household purchasing power and economic stability in the region.

To gain a clear understanding of the inflation rate in the FZ, it is necessary to compare the average real GDP growth and average inflation figures (**See below**).

|                                        | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|----------------------------------------|------|------|------|------|------|------|
| Average Real GDP growth<br>CEMAC+WAEMU | 3.2% | 3.9% | 2.6% | 3.5% | 3.7% | 3.5% |
| Average Inflation<br>CEMAC+WAEMU       | 2.5% | 6.1% | 4.1% | 3.7% | 3%   | 2.7% |

A concerning trend emerges when comparing real GDP growth and inflation within the FZ. The data reveals that the FZ's real GDP growth has consistently lagged its annual inflation rate. For instance, in 2022, while the economy grew by 3.9%, the inflation rate reached 6.1%. This pattern of inflation outpacing real GDP growth indicates a loss of purchasing power and reflects an overheated economy. Essentially, the FZ is experiencing a situation where prices are rising faster than the real output of the economy. This trend has persisted each year since 2021, raising concerns about the FZ's economic stability and its ability to achieve sustainable and inclusive growth.

|                                        | 2021         | 2022        | 2023        | Forecast     |             |             |
|----------------------------------------|--------------|-------------|-------------|--------------|-------------|-------------|
|                                        | 2021         | 2022        | 2023        | 2024         | 2025        | 2026        |
| Cameroon                               | 3.2          | 10.1        | 10.1        | 10.0         | 9.9         | 9.9         |
| Central African Republic               | -5.3         | 2.6         | 9.0         | 5.2          | 9.0         | 5.4         |
| Chad                                   | -0.4         | 5.0         | 2.9         | 3.8          | 4.1         | 4.2         |
| Equatorial Guinea                      | 0.3          | 12.7        | -3.7        | -5.9         | -8.2        | -5.5        |
| Gabon                                  | -2.0         | 6.9         | 1.4         | 5.5          | 5.3         | 4.2         |
| Republic of Congo                      | -1.0         | -0.7        | 1.0         | 4.2          | 4.5         | 1.9         |
| <b>Average exports<br/>CEMAC</b>       | <b>-0.8%</b> | <b>6.1%</b> | <b>3.4%</b> | <b>3.8%</b>  | <b>4.1%</b> | <b>3.3%</b> |
| Benin                                  | 12.6         | 19.1        | 2.9         | 8.0          | 7.9         | 8.3         |
| Burkina Faso                           | 6.5          | -2.8        | -2.1        | 3.0          | 3.1         | 3.4         |
| Cote d'Ivoire                          | 16.9         | 4.9         | 8.9         | 6.0          | 6.5         | 7.0         |
| Guinea Bissau                          | 15.0         | -6.5        | -3.1        | 12.2         | 9.6         | 7.6         |
| Mali                                   | -1.0         | 18.1        | -3.9        | 2.8          | 4.3         | 5.1         |
| Niger                                  | 6.7          | 14.4        | -8.1        | 82.5         | 9.8         | 8.7         |
| Senegal                                | 22.5         | 3.5         | 6.7         | 14.3         | 20.1        | 3.4         |
| Togo                                   | 5.3          | -1.1        | 4.2         | 4.9          | 6.4         | 6.8         |
| <b>Average exports<br/>WAEMU</b>       | <b>10.5%</b> | <b>6.2%</b> | <b>0.6%</b> | <b>16.7%</b> | <b>8.4%</b> | <b>6.2%</b> |
| <b>Average exports<br/>CEMAC+WAEMU</b> | <b>4.8%</b>  | <b>6.1%</b> | <b>2%</b>   | <b>10.2%</b> | <b>6.2%</b> | <b>4.7%</b> |

*Exports of CEMAC and WAEMU from 2021 to 2026 in %*

An analysis of export performance within the FZ reveals a mixed picture with significant fluctuations and underlying disparities between its two monetary unions, CEMAC and WAEMU. CEMAC's export performance has been relatively stable, albeit with a low starting point. Beginning with a slight deficit in 2021, exports increased notably in 2022 before moderating in 2023. Projections suggest continued modest growth in the coming years, with rates hovering between 3.3% and 4.1%. WAEMU, on the other hand, has experienced a much more volatile trajectory. While its initial export growth in 2021 significantly outpaced CEMAC's, it faced a sharp decline in 2022 and a dramatic drop to a mere 0.6% in 2023. However, projections anticipate a significant rebound in 2024, followed by a gradual decline in the subsequent years. This volatility is reflected in the overall export performance of the FZ, which has fluctuated considerably between 2% and 10% over the period. The substantial increase projected for 2024 is largely driven by WAEMU's anticipated rebound, highlighting the significant influence of WAEMU's performance on the overall FZ export figures.

|                                        | Forecast    |             |             |             |             |             |
|----------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                        | 2021        | 2022        | 2023        | 2024        | 2025        | 2026        |
| Cameroon                               | 9.0         | 7.3         | 7.8         | 9.7         | 9.9         | 10.0        |
| Central African Republic               | -11.5       | -5.5        | 5.5         | 7.3         | 9.9         | 5.5         |
| Chad                                   | 5.1         | 2.0         | 16.0        | -3.1        | 2.0         | 2.1         |
| Equatorial Guinea                      | 8.5         | 19.0        | -1.4        | 3.8         | -3.3        | -2.8        |
| Gabon                                  | 3.5         | 8.3         | -0.9        | 4.1         | 5.7         | 3.2         |
| Republic of Congo                      | 25.0        | 5.9         | 8.9         | 8.5         | 7.0         | 5.0         |
| <b>Average imports<br/>CEMAC</b>       | <b>6.6%</b> | <b>6.1%</b> | <b>5.9%</b> | <b>5%</b>   | <b>5.2%</b> | <b>3.8%</b> |
| Benin                                  | 16.8        | 18.5        | 0.1         | 5.1         | 5.0         | 5.5         |
| Burkina Faso                           | 15.5        | 8.2         | -1.9        | 3.8         | 3.2         | 3.3         |
| Cote d'Ivoire                          | 15.9        | 1.3         | 10.5        | 9.5         | 7.0         | 6.7         |
| Guinea Bissau                          | 4.0         | 2.5         | 0.8         | 3.0         | 4.0         | 3.0         |
| Mali                                   | 14.1        | 0.7         | 2.3         | 3.9         | 4.3         | 4.3         |
| Niger                                  | 6.9         | 6.5         | -12.0       | 22.5        | 5.5         | 5.5         |
| Senegal                                | 16.0        | 12.4        | 6.0         | 5.4         | 4.9         | 3.1         |
| Togo                                   | 6.9         | 5.1         | 3.8         | 4.3         | 5.0         | 5.4         |
| <b>Average imports<br/>WAEMU</b>       | <b>12%</b>  | <b>6.9%</b> | <b>1.2%</b> | <b>7.1%</b> | <b>4.8%</b> | <b>4.6%</b> |
| <b>Average imports<br/>CEMAC+WAEMU</b> | <b>9.3%</b> | <b>6.5%</b> | <b>3.5%</b> | <b>6%</b>   | <b>5%</b>   | <b>4.2%</b> |

*Imports of CEMAC and WAEMU from 2021 to 2026 in %*

An analysis of import trends within the FZ reveals an overall downward trajectory, albeit with some fluctuations and variations between its two monetary unions, CEMAC and WAEMU. CEMAC's import growth has been relatively stable, starting at 6.6% in 2021 and gradually decreasing to 5.9% in 2023. This downward trend is projected to continue, with rates falling to

3.8% by 2026. This suggests a gradual slowing of import growth in CEMAC economies. WAEMU, on the other hand, has experienced more significant fluctuations. After a strong start in 2021 with a 12% import growth rate, it faced sharp declines in 2022 and 2023. However, projections indicate a recovery in 2024, followed by a moderation in subsequent years. The overall trend for the FZ shows a similar pattern, with a peak in 2021 followed by a gradual decline. Import growth is projected to continue its downward trajectory, reaching 4.2% by 2026. These trends suggest a general slowdown in import growth within the FZ. While WAEMU's volatility introduces some uncertainty, the overall picture points towards a moderation in import demand. This could reflect various factors, including slower economic growth, changes in domestic demand, or shifts in trade policies.

|                                                               | <b>2021</b>  | <b>2022</b> | <b>2023</b>  | <b>2024</b> | <b>2025</b> | <b>2026</b> |
|---------------------------------------------------------------|--------------|-------------|--------------|-------------|-------------|-------------|
| Average Exports<br>CEMAC+WAEMU                                | 4.8%         | 6.1%        | 2%           | 10.2%       | 6.2%        | 4.7%        |
| Average Imports<br>CEMAC+WAEMU                                | 9.3%         | 6.5%        | 3.5%         | 6%          | 5%          | 4.2%        |
| <b>TRADE DEFICIT (-) OR<br/>TRADE SURPLUS<br/>CEMAC+WAEMU</b> | <b>-4.5%</b> | <b>0.4%</b> | <b>-1.5%</b> | <b>4.2%</b> | <b>1.2%</b> | <b>0.5%</b> |

*Average Exports and Imports CEMAC+WAEMU and Trade Balance*

An analysis of the FZ trade balance reveals a fluctuating pattern with periods of deficit and surplus. In 2021 and 2023, the FZ experienced trade deficits, with imports exceeding exports. This suggests that the FZ was spending more on imports than it was earning from exports during those years. In 2022, the FZ achieved a small trade surplus of 0.4%, indicating a slight improvement in its trade balance. However, projections suggest a volatile outlook for the FZ's trade balance. A significant increase in the trade surplus is expected in 2024, reaching 4.2%. However, this improvement is projected to be short-lived, with the surplus collapsing to 0.5% by 2026. This suggests that the FZ's trade balance remains vulnerable to external shocks and fluctuations in global demand. The fluctuating nature of the FZ's trade balance highlights the challenges it faces in achieving and maintaining a sustainable trade surplus. This vulnerability may be linked to factors such as the FZ's dependence on commodity exports, its limited export diversification, and its susceptibility to changes in global commodity prices.

|                                      | Forecast     |              |              |              |              |              |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                      | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         |
| Cameroon                             | 47.3         | 45.3         | 41.9         | 40.1         | 38.8         | 35.5         |
| Central African Republic             | 48.6         | 54.2         | 55.7         | 55.6         | 54.5         | 50.7         |
| Chad                                 | 52.1         | 47.4         | 44.8         | 42.3         | 41.6         | 41.9         |
| Equatorial Guinea                    | 43.4         | 39.3         | 36.6         | 32.6         | 32.3         | 34.8         |
| Gabon                                | 65.8         | 55.3         | 70.5         | 73.7         | 79.1         | 81.8         |
| Republic of Congo                    | 92.1         | 86.6         | 96.0         | 91.3         | 85.9         | 81.0         |
| <b>Average Debts<br/>CEMAC</b>       | <b>58.2%</b> | <b>54.6%</b> | <b>57.5%</b> | <b>55.9%</b> | <b>55.3%</b> | <b>54.2%</b> |
| Benin                                | 50.3         | 54.2         | 55.0         | 54.1         | 52.9         | 52.1         |
| Burkina Faso                         | 55.4         | 58.1         | 61.4         | 63.3         | 65.4         | 63.2         |
| Cote d'Ivoire                        | 51.4         | 56.5         | 58.0         | 58.2         | 58.0         | 56.9         |
| Guinea Bissau                        | 78.8         | 80.4         | 77.8         | 75.6         | 72.8         | 70.4         |
| Mali                                 | 50.4         | 51.8         | 52.1         | 52.6         | 52.8         | 53.4         |
| Niger                                | 51.3         | 51.7         | 54.5         | 52.6         | 50.9         | 49.3         |
| Senegal                              | 73.4         | 76.1         | 79.5         | 72.4         | 67.5         | 67.2         |
| Togo                                 | 63.0         | 65.8         | 67.1         | 68.8         | 67.0         | 65.0         |
| <b>Average Debts<br/>WAEMU</b>       | <b>59.2%</b> | <b>61.8%</b> | <b>63.4%</b> | <b>55.6%</b> | <b>60.9%</b> | <b>59.6%</b> |
| <b>Average Debts<br/>CEMAC+WAEMU</b> | <b>58.7%</b> | <b>58.2%</b> | <b>60.4%</b> | <b>55.7%</b> | <b>58.1%</b> | <b>56.9%</b> |

*Debts of CEMAC and WAEMU from 2021 to 2026 in %: A Growing Concern*

An analysis of debt levels within the FZ reveals a concerning trend of persistent and substantial debt burdens. The FZ's overall debt level has consistently remained above 55% throughout the period under consideration. This indicates a significant financial obligation for the region, raising concerns about its long-term fiscal sustainability. Examining the two monetary zones within the FZ, CEMAC and WAEMU, reveals some differences in their debt trajectories. CEMAC's debt level has fluctuated, starting at 58.2% in 2021, decreasing slightly to 54.6% in 2022, and then rising to 57.5% in 2023. Projections suggest that CEMAC's debt will remain below 60% in the coming years. WAEMU, on the other hand, has experienced a more concerning trend of increasing debt levels. Starting at 59.2% in 2021, WAEMU's debt has progressively increased, reaching 63.4% in 2023. Projections indicate that it may peak at around 60% by 2025. The overall picture for the FZ is one of substantial and persistent debt burdens. The peak of 60.4% reached in 2023 highlights the significant financial obligations facing the region. This high level of debt may limit the fiscal space available for governments to invest in key development priorities and could potentially hinder long-term economic growth. The concerning trend of rising debt levels in WAEMU further underscores the need for prudent fiscal management and policies aimed at ensuring debt sustainability within the FZ.

## Data Aggregation and Descriptive Statistics of the FZ compared to Angola, Burundi, the Gambia and Ghana

As an initial step in assessing the economic performance of the FZ relative to other African economies, this section aggregates and summarizes descriptive statistics for key macroeconomic variables: Real GDP growth, fiscal balance, inflation, exports, imports, and debt for the FZ and a comparative group comprising Angola, Burundi, The Gambia, and Ghana; the data sources and aggregation methods employed in this analysis will be detailed to ensure methodological clarity.

|                                     | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|-------------------------------------|------|------|------|------|------|------|
| Average real GDP growth CEMAC+WAEMU | 3.2% | 3.9% | 2.6% | 3.5% | 3.7% | 3.5% |
| Real GDP growth Angola              | 1.2% | 3%   | 0.8% | 2.8% | 2.7% | 2.4% |
| Real GDP growth Burundi             | 3.1% | 1.8% | 2.7% | 3.8% | 4.4% | 4.8% |
| Real GDP growth The Gambia          | 5.3% | 4.9% | 5.3% | 5.5% | 5.8% | 5.4% |
| Real GDP growth Ghana               | 5.1% | 3.8% | 2.9% | 2.9% | 4.4% | 4.9% |

*Real GDP Growth Trends: A Comparative Study of the FZ Average and the Diverging Trajectories of Angola, Burundi, the Gambia, and Ghana*

The overall average growth for CEMAC and WAEMU combined shows moderate but relatively stable growth, fluctuating between 2.6% and 3.9% over the forecast period. This suggests a general trend of consistent, if unspectacular, economic expansion for the region. However, these regional average masks significant variations in economic performance among the individual countries that comprise these blocs. When comparing the CEMAC and WAEMU average to Angola's projected growth, a clear disparity emerges. Angola's growth is noticeably weaker and significantly more volatile than the regional average. While Angola experiences some periods of growth comparable to the average, it also endures a significant slump, falling to just 0.8% growths in 2023. This volatility and generally lower growth compared to the regional average suggests that Angola faces unique economic challenges that are not necessarily representative of the broader CEMAC and WAEMU regions. These challenges could be linked to factors like reliance on specific commodities, political instability, or other country-specific circumstances.

In contrast to Angola, both Burundi and The Gambia demonstrate stronger growth performance than the CEMAC and WAEMU average. Burundi, while starting with growth slightly below the average, steadily increases its growth rate over the forecast period, eventually surpassing the regional average. This positive trajectory suggests that Burundi may be experiencing positive economic momentum, potentially driven by factors such as improved governance, investments in key sectors, or other internal drivers. The Gambia, on the other hand, stands out as a clear overachiever, consistently maintaining growth rates well above the regional average. This exceptional performance points to specific advantages or policies in The Gambia that are

contributing to its economic success, setting it apart from the broader trends observed in the CEMAC and WAEMU regions.

Ghana's growth pattern presents a more nuanced comparison to the CEMAC and WAEMU average. While Ghana initially experiences strong growth exceeding the regional average, it later experiences a slowdown, mirroring the regional trend but dipping slightly below it. However, Ghana's growth subsequently rebounds, eventually approaching rates comparable to its initial performance and exceeding the average. This pattern indicates that Ghana's economy, while influenced by broader regional trends, also exhibits its own distinct dynamics. The fluctuations in Ghana's growth suggest a need for policies that can mitigate economic volatility and ensure sustainable long-term development, aligning its performance more consistently with the positive aspects of the regional average.

|                                    | 2021   | 2022   | 2023  | 2024  | 2025  | 2026  |
|------------------------------------|--------|--------|-------|-------|-------|-------|
| Average Fiscal balance CEMAC+WAEMU | -3.4%  | -1.9%  | -2.3% | -2.5% | 0.9%  | -2.2% |
| Fiscal balance Angola              | 4.0%   | 1%     | -1.7% | -2.8% | -2.4% | -3.2% |
| Fiscal balance Burundi             | -4.6%  | -10.7% | -7.7% | -4.7% | -4.2% | -3.4% |
| Fiscal balance The Gambia          | -4.8%  | -5%    | -2.6% | -2.1% | -1.5% | -1%   |
| Fiscal balance Ghana               | -11.4% | -11%   | -4.7% | -5%   | -4%   | -3.5% |

*Fiscal Balance Disparities: A Comparative Analysis of the FZ Average with Angola, Burundi, the Gambia, and Ghana*

The fiscal balance data reveals significant differences between the CEMAC and WAEMU regions as a whole and the individual countries within them. The average fiscal balance for the combined CEMAC and WAEMU regions shows a trend of deficit spending for most of the projected period. While the deficit narrows from -3.4% in 2021 to -1.9% in 2022, it widens again and remains in the negative range, with a small surplus only in 2025. This suggests that, on average, governments in these regions are spending more than they are collecting in revenue, which could have implications for debt accumulation and long-term fiscal sustainability.

Angola's fiscal balance shows a more volatile pattern. Unlike the consistent deficits of the combined CEMAC and WAEMU regions, Angola begins with a surplus of 4% in 2021, which decreases significantly to 1% in 2022. By 2023, Angola also falls into deficit, although it is smaller than the regional average. Angola's deficit then widens in the following years, reaching -3.2% by 2026. This volatile fiscal balance suggests that Angola's public finances are subject to significant fluctuations, potentially due to factors like commodity price volatility or other economic shocks (Eduardo, 2023).

Burundi's fiscal balance consistently shows a deficit, and these deficits are generally larger than the CEMAC and WAEMU average. While the deficit narrows somewhat over the projection

period, it remains substantial, particularly in 2022 when it reaches -10.7%. This suggests that Burundi's government faces significant challenges in managing its public finances and may be heavily reliant on external financing or have limited capacity to increase revenue collection. The Gambia, however, shows a more positive trend of gradually narrowing its deficit over time, eventually reaching -1% by 2026. This indicates some progress in fiscal consolidation and improved management of public finances.

Ghana exhibits the largest fiscal deficits among the countries considered, consistently exceeding the deficits observed in the combined CEMAC and WAEMU regions. While Ghana's deficit does decrease significantly by 2023, it remains relatively high compared to the other countries. This highlights potential challenges in Ghana's fiscal management and suggests that the country may require significant efforts to bring its public finances to a more sustainable path.

|                               | 2021  | 2022  | 2023  | 2024  | 2025  | 2026  |
|-------------------------------|-------|-------|-------|-------|-------|-------|
| Average Inflation CEMAC+WAEMU | 2.5%  | 6.1%  | 4.1%  | 3.7%  | 3%    | 2.7%  |
| Inflation Angola              | 25.8% | 21.4% | 13.6% | 24.7% | 15.4% | 11.4% |
| Inflation Burundi             | 8.3%  | 18.8% | 27.1% | 22.8% | 20.4% | 16.2% |
| Inflation The Gambia          | 7.4%  | 11.5% | 16.9% | 15.9% | 10.5% | 6.5%  |
| Inflation Ghana               | 10%   | 31.5% | 40.3% | 23.2% | 11.5% | 8%    |

*Divergent Inflation Patterns: A Study of the FZ Average Compared with Inflationary Dynamics in Angola, Burundi, the Gambia, and Ghana*

The average inflation for the CEMAC and WAEMU regions combined remains relatively moderate throughout the projected period. While there is a notable increase in 2022, likely due to global economic factors, the inflation rate then gradually decreases, staying within a manageable range. This suggests that the monetary policies and economic structures within these regions provide some level of insulation against extreme inflationary pressures, at least on average. The individual country data, however, paint a very different picture. Angola, despite experiencing a downward trend in inflation, still faces double-digit inflation rates throughout the forecast period. This persistent high inflation suggests that Angola grapples with deep-seated economic issues that are not easily addressed by regional monetary policies. These challenges may be related to factors like currency devaluation, supply chain disruptions, or other structural imbalances.

Burundi's inflation rate is also significantly higher and more volatile than the regional average. While there is some fluctuation, the inflation generally hovers in the double-digit range, peaking at over 27% in 2023. This suggests that Burundi faces significant inflationary pressures, potentially due to factors like fiscal imbalances, exchange rate volatility, or domestic supply constraints (IMF, 2023). The Gambia, like Burundi, experiences inflation rates considerably higher than the regional average, albeit with some decrease towards the end of the projection period. The persistent high inflation in The Gambia may be related to its reliance on imports,

fluctuations in commodity prices, or other external shocks. Ghana's inflation data is particularly alarming, with a dramatic surge in 2022 and 2023, reaching a peak of over 40%. While the inflation rate decreases significantly in the later years, it remains relatively high compared to the regional average. This suggests that Ghana's economy may be particularly susceptible to inflationary pressures, possibly due to a combination of factors like fiscal imbalances, exchange rate depreciation, and external shocks.

|                             | 2021   | 2022 | 2023  | 2024  | 2025  | 2026  |
|-----------------------------|--------|------|-------|-------|-------|-------|
| Average Exports CEMAC+WAEMU | 4.8%   | 6.1% | 2%    | 10.2% | 6.2%  | 4.7%  |
| Exports Angola              | -8.6%  | 3.3% | -2.8% | -2.5% | 0%    | 0.0%  |
| Exports Burundi             | 3.4%   | 5.8% | 7.8%  | 13.8% | 14.2% | 15.2% |
| Exports The Gambia          | -27.2% | 8.5% | 18.9% | 18%   | 20.1% | 22.0% |
| Exports Ghana               | 69.1%  | 9.6% | 5.8%  | 10.3% | 6.4%  | 7.2%  |

*Contrasting Export Performance: FZ Average Compared with Divergent Trends in Angola, Burundi, The Gambia, and Ghana*

The export growth figures reveal a diverse picture across the CEMAC and WAEMU regions and the individual countries within them. The average export growth for the combined CEMAC and WAEMU regions shows fluctuating growth, with periods of strong expansion, 10.2% in 2024, interspersed with slower growth or even contraction with 2% in 2023. This suggests that the regions' export performance is subject to various factors, potentially including global demand, commodity prices, and internal economic conditions.

Angola's export growth is notably volatile and generally weaker than the regional average. It begins with a significant contraction of -8.6% in 2021, suggesting potential challenges in its export sector. While Angola experiences some growth in 2022, it again faces contractions in 2023 and 2024. The subsequent years show near-zero growth. This erratic pattern and overall weak performance compared to the regional average suggest structural issues affecting Angola's exports, potentially related to its dependence on a limited range of commodities or other economic vulnerabilities. Burundi, in contrast, demonstrates consistently strong export growth, exceeding the regional average throughout the forecast period. Burundi's export growth steadily increases, reaching double-digit figures in later years. This suggests that Burundi may be successfully diversifying its exports, expanding into new markets, or benefiting from favourable global demand for its export products.

The Gambia's export growth is highly volatile. It begins with a sharp contraction in 2021, even more severe than Angola's, suggesting significant challenges in its export sector. However, The Gambia then experiences a strong rebound, with export growth reaching double-digit figures from 2023 onwards. This volatile pattern indicates that The Gambia's exports are subject to considerable fluctuations, possibly due to its relatively small economy and reliance on specific export products or markets. Meanwhile, Ghana's export growth shows a particularly striking

pattern. It starts with an exceptionally high growth rate of 69.1% in 2021. While this figure is likely an anomaly and may be due to specific one-time events or base effects, it nonetheless highlights the potential for rapid export expansion in Ghana. Following this initial surge, Ghana's export growth moderates but generally remains healthy and in line with or exceeding the regional average. This suggests that Ghana has a relatively robust export sector, potentially driven by diversification or strong performance in specific industries.

|                             | 2021   | 2022   | 2023  | 2024  | 2025  | 2026  |
|-----------------------------|--------|--------|-------|-------|-------|-------|
| Average Imports CEMAC+WAEMU | 9.3%   | 6.5%   | 3.5%  | 6%    | 5%    | 4.2%  |
| Imports Angola              | -3.8%  | -26.1% | -7.3% | -3.3% | 2.2%  | 1.3%  |
| Imports Burundi             | 3.2%   | 7.0%   | 7.0%  | 7.1%  | 7.3%  | 7.5%  |
| Imports The Gambia          | -15.2% | 16.2%  | 11.0% | 12.0% | 11.0% | 10.0% |
| Imports Ghana               | 113.8% | 13.8%  | 6.3%  | 8.3%  | 9.2%  | 10.1% |

*Import Growth Disparities: Contrasting the FZ Average with Individual Country Import Patterns such as Angola, Burundi, The Gambia, and Ghana*

The import growth figures reveal diverse trends across the CEMAC and WAEMU regions and the individual countries. The combined CEMAC and WAEMU average import growth shows a pattern of fluctuating but generally growth. While there's a significant jump in 2021, growth moderates in subsequent years, suggesting a degree of stabilisation in import demand across the regions. However, Angola's import growth is notably erratic and largely negative. It begins with a contraction in 2021 and experiences a drastic decline in 2022. While there's some recovery towards the end of the projection period, Angola's import growth remains significantly below the regional average and even negative for several years. This suggests potential constraints on Angola's import capacity, possibly due to factors like foreign exchange shortages, economic downturns, or trade policy changes. Burundi's import growth, in contrast, demonstrates a consistent and positive trend. While slightly below the regional average in 2021, Burundi's import growth steadily increases and remains positive throughout the projection period. This suggests a growing demand for imports in Burundi, potentially driven by factors like increasing domestic consumption, investment in infrastructure, or expanding trade relationships.

The Gambia's import growth is also volatile, though less extreme than Angola's. It begins with a significant contraction in 2021, but then rebounds strongly in the following years, showing double-digit growth. This suggests that The Gambia's imports are subject to considerable fluctuations, potentially due to its small economy and reliance on specific imports. Ghana's import growth is particularly noteworthy. It starts with an exceptionally high growth rate in 2021, like its export performance in that year. This figure is likely an anomaly and may be due to one-time factors or base effects. However, even after this initial surge, Ghana's import growth

generally remains robust and exceeds the regional average, suggesting a strong and growing demand for imports in the country.

|                           | 2021  | 2022  | 2023  | 2024  | 2025  | 2026  |
|---------------------------|-------|-------|-------|-------|-------|-------|
| Average Debts CEMAC+WAEMU | 58.7% | 58.2% | 60.4% | 55.7% | 58.1% | 56.9% |
| Debts Angola              | 87.9% | 69.5% | 87.2% | 74.5% | 69.2% | 67.0% |
| Debts Burundi             | 66.6% | 68.4% | 72.4% | 69.9% | 64.8% | 58.8% |
| Debts The Gambia          | 83.9% | 83.4% | 75.8% | 68.9% | 64.6% | 59.5% |
| Debts Ghana               | 76.7% | 88.7% | 86.1% | 83.6% | 80.9% | 77.9% |

*Comparative Debt Analysis: Contrasting FZ Average with Debt Volatility and Trends in Angola, Burundi, the Gambia, and Ghana*

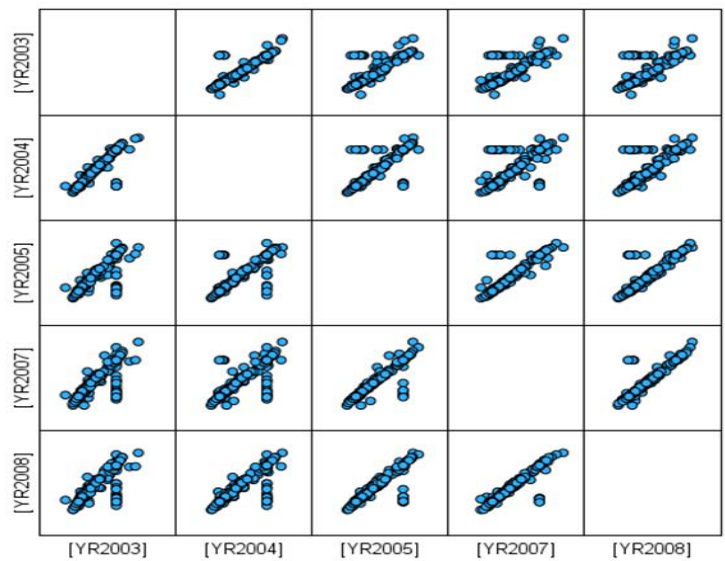
The average debt level for the combined CEMAC and WAEMU regions hovers around 58% to 60% of GDP throughout the projected period, indicating a relatively stable debt burden for the region. However, it is crucial to remember that this is an average, and individual countries within these regions may have significantly different debt levels. In contrast to the relative stability of the CEMAC and WAEMU region, Angola's debt-to-GDP ratio is highly volatile, fluctuating significantly between years. It peaks at 87.9% in 2021 and generally remains above the regional average. This volatility is likely linked to Angola's dependence on oil exports, making its economy susceptible to commodity price fluctuations. Burundi's debt-to-GDP ratio tells a different story. It shows a gradual upward trend initially, peaking at 72.4% in 2023, before declining in later years. This pattern suggests potential challenges in managing its debt, possibly due to limited revenue generation capacity or high levels of public spending.

The Gambia's debt-to-GDP ratio presents a more positive picture. Although consistently high, it shows a clear downward trend throughout the projection period, indicating progress in managing its debt burden. This progress could be attributed to fiscal consolidation efforts or debt relief initiatives. Ghana's debt-to-GDP ratio is also high, peaking at 88.7% in 2022, but shows a fluctuating trend with some decreases in later years. This suggests that Ghana's debt situation is a concern, although there might be efforts to reduce the debt burden over time.

## Correlation analysis

The raw data, covering twenty macroeconomic indicators for fourteen FZ countries from 2003 to 2023, obtained from the World Bank's World Development Indicators database, was aggregated and organized into an Excel spread sheet. Prior to analysis, data cleaning procedures were applied to handle missing values and outliers. Descriptive statistics, including means, standard deviations, minima, and maxima, were calculated for key variables to provide an initial overview

of the data's characteristics. These statistics which serve to verify the validity of our hypotheses are presented in this section.



*Visualizing the CFAF-Economy Nexus: A Scatter Diagram Analysis of the FZ (2003-2023)*

The scatter diagram illustrates a clear positive relationship between the CFAF and the FZ's economic performance across different time periods. The plot for the period 2003-2008 shows a distinct upward trend with minimal outliers, indicating a strong positive correlation between the CFAF and the economy performance of FZ during those years. This suggests that as the CFAF strengthened, the FZ's economy also tended to improve. Similarly, the scatter plots demonstrate a high positive correlation, albeit with a few outliers. This consistency across different timeframes reinforces the notion of a robust positive relationship between the CFAF fixed exchange rate regime and the FZ's economic performance over the entire period from 2003 to 2023.

A Pearson correlation analysis was conducted to examine the relationship between 20 macroeconomic indicators of the performance of 14 SSA countries from 2003 to 2023 and the CFAF fixed exchange rate (**See first table below**). The results consistently showed a statistically significant positive correlation (Sig. < 0.001) throughout the entire period. This indicates a strong and reliable relationship between the CFAF fixed exchange rate regime and the macroeconomic performance of these countries. However, the strength of this correlation has fluctuated over time, showing a slight downward trend. In the initial years, particularly in 2004, the correlation was very strong (0.912), suggesting a close relationship between the CFAF and the macroeconomic indicators. Between 2005 and 2014, the correlation remained substantial, although it gradually declined, ranging from 0.897 to 0.722. From 2015 to 2023, the correlation continued to decrease, settling at a moderate level, ranging from 0.693 to 0.421.

The Spearman's rank correlation coefficient ( $R_s$ ) was calculated manually using the formula  $R_s = 1 - \frac{6 \sum d^2}{n(n^2 - 1)}$ , where  $d$  is the difference between the ranks of corresponding variables and  $n$  is the number of observations.

$$\begin{aligned}
 R_s &= 1 - \frac{6 \cdot (0.057)^2}{6.401 \cdot ((6.401)^2 - 1)} \\
 &= 1 - \frac{6 \cdot (0.003249)}{6.401 \cdot (40.972801 - 1)} \\
 &= 1 - \frac{0.019494}{6.401 \cdot (39.972801)} \\
 &= 1 - \frac{0.019494}{255.84797} \\
 &= 1 - 0.0000762
 \end{aligned}$$

$$R_s = 0.999238$$

Using a subset of the data, the calculated  $R_s$  was approximately 0.999238, indicating a very strong positive association. Then, a comprehensive Spearman's correlation analysis was conducted using SPSS, incorporating all variables and standard deviations from 2003 to 2023 (**See second table below**). The results consistently showed a statistically significant positive correlation (Sig. < 0.001) throughout the entire period, further supporting the strong positive association between the CFAF fixed exchange rate regime and the macroeconomic indicators. However, like the Pearson correlation analysis, the strength of the Spearman's rank correlation fluctuated over time, exhibiting a slight downward trend. In the initial years, particularly in 2004, the correlation was very strong (0.905). Between 2005 and 2014, the correlation remained substantial, although it gradually declined, ranging from 0.889 to 0.721. From 2015 to 2023, the correlation continued to decrease, settling at a moderate level, ranging from 0.660 to 0.355. Despite these fluctuations, the consistent positive correlation and the statistically significant results suggest that a deeper analysis using regression techniques is warranted. Regression analysis will allow for a more detailed examination of the relationship between the CFAF fixed exchange rate regime and the macroeconomic performance indicators of the FZ, helping to identify specific factors that contribute to the observed trends and fluctuations.

### Correlations:

|          |                     | [YR2003] | [YR2004] | [YR2005] | [YR2006] | [YR2007] | [YR2008] | [YR2009] | [YR2010] | [YR2011] | [YR2012] | [YR2013] | [YR2014] | [YR2015] | [YR2016] | [YR2017] | [YR2018] | [YR2019] | [YR2020] | [YR2021] | [YR2022] | [YR2023] |
|----------|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| [YR2003] | Pearson Correlation | 1        | .912**   | .897**   | .806**   | .850**   | .811**   | .811**   | .801**   | .807**   | .735**   | .761**   | .722**   | .693**   | .663**   | .617**   | .652**   | .641**   | .674**   | .577**   | .628**   | .421**   |
|          | Sig. (2-tailed)     |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2004] | Pearson Correlation | .912**   | 1        | .901**   | .807**   | .845**   | .890**   | .867**   | .860**   | .867**   | .792**   | .749**   | .796**   | .759**   | .726**   | .687**   | .725**   | .710**   | .746**   | .655**   | .618**   | .359**   |
|          | Sig. (2-tailed)     | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2005] | Pearson Correlation | .897**   | .901**   | 1        | .904**   | .938**   | .901**   | .889**   | .884**   | .889**   | .814**   | .841**   | .796**   | .755**   | .722**   | .683**   | .722**   | .706**   | .741**   | .651**   | .711**   | .377**   |
|          | Sig. (2-tailed)     | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2006] | Pearson Correlation | .806**   | .807**   | .904**   | 1        | .950**   | .912**   | .904**   | .902**   | .905**   | .830**   | .859**   | .814**   | .756**   | .755**   | .712**   | .750**   | .733**   | .769**   | .704**   | .763**   | .397**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2007] | Pearson Correlation | .850**   | .845**   | .938**   | .950**   | 1        | .953**   | .952**   | .942**   | .945**   | .866**   | .896**   | .856**   | .810**   | .780**   | .722**   | .757**   | .739**   | .777**   | .689**   | .745**   | .363**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2008] | Pearson Correlation | .811**   | .890**   | .901**   | .912**   | .953**   | 1        | .970**   | .968**   | .973**   | .892**   | .854**   | .897**   | .839**   | .808**   | .762**   | .802**   | .779**   | .815**   | .730**   | .718**   | .339**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2009] | Pearson Correlation | .811**   | .867**   | .889**   | .904**   | .952**   | .970**   | 1        | .992**   | .990**   | .905**   | .870**   | .897**   | .846**   | .816**   | .758**   | .794**   | .771**   | .815**   | .726**   | .721**   | .364**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2010] | Pearson Correlation | .801**   | .860**   | .884**   | .902**   | .942**   | .968**   | .992**   | 1        | .987**   | .908**   | .869**   | .894**   | .830**   | .799**   | .754**   | .794**   | .773**   | .814**   | .724**   | .730**   | .360**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2011] | Pearson Correlation | .807**   | .867**   | .889**   | .905**   | .945**   | .973**   | .990**   | .987**   | 1        | .914**   | .876**   | .900**   | .840**   | .809**   | .760**   | .801**   | .776**   | .817**   | .728**   | .731**   | .357**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2012] | Pearson Correlation | .735**   | .792**   | .814**   | .830**   | .866**   | .892**   | .905**   | .908**   | .914**   | 1        | .962**   | .982**   | .911**   | .880**   | .833**   | .878**   | .855**   | .862**   | .816**   | .661**   | .307**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2013] | Pearson Correlation | .761**   | .749**   | .841**   | .859**   | .896**   | .854**   | .870**   | .869**   | .876**   | .962**   | 1        | .951**   | .887**   | .858**   | .806**   | .848**   | .826**   | .834**   | .783**   | .692**   | .334**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2014] | Pearson Correlation | .722**   | .796**   | .796**   | .814**   | .856**   | .897**   | .897**   | .894**   | .900**   | .982**   | .951**   | 1        | .938**   | .908**   | .850**   | .892**   | .868**   | .877**   | .827**   | .647**   | .308**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2015] | Pearson Correlation | .693**   | .759**   | .755**   | .756**   | .810**   | .839**   | .846**   | .830**   | .840**   | .911**   | .887**   | .938**   | 1        | .970**   | .893**   | .928**   | .905**   | .916**   | .869**   | .682**   | .292**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2016] | Pearson Correlation | .663**   | .726**   | .722**   | .755**   | .780**   | .808**   | .816**   | .799**   | .809**   | .880**   | .858**   | .908**   | .970**   | 1        | .918**   | .951**   | .912**   | .925**   | .895**   | .703**   | .312**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2017] | Pearson Correlation | .617**   | .687**   | .683**   | .712**   | .722**   | .762**   | .758**   | .754**   | .760**   | .833**   | .806**   | .850**   | .893**   | .918**   | 1        | .948**   | .962**   | .882**   | .857**   | .702**   | .303**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2018] | Pearson Correlation | .652**   | .725**   | .722**   | .750**   | .757**   | .802**   | .794**   | .794**   | .801**   | .878**   | .848**   | .892**   | .928**   | .951**   | .948**   | 1        | .923**   | .929**   | .903**   | .744**   | .324**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2019] | Pearson Correlation | .641**   | .710**   | .706**   | .733**   | .739**   | .779**   | .771**   | .773**   | .776**   | .855**   | .826**   | .868**   | .905**   | .912**   | .962**   | .923**   | 1        | .916**   | .872**   | .694**   | .291**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2020] | Pearson Correlation | .674**   | .746**   | .741**   | .769**   | .777**   | .815**   | .815**   | .814**   | .817**   | .862**   | .834**   | .877**   | .916**   | .925**   | .882**   | .929**   | .916**   | 1        | .904**   | .751**   | .341**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2021] | Pearson Correlation | .577**   | .655**   | .651**   | .704**   | .688**   | .730**   | .726**   | .724**   | .728**   | .816**   | .783**   | .827**   | .869**   | .895**   | .857**   | .903**   | .872**   | .904**   | 1        | .796**   | .364**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    |          |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2022] | Pearson Correlation | .628**   | .618**   | .711**   | .763**   | .745**   | .718**   | .721**   | .730**   | .731**   | .661**   | .692**   | .647**   | .682**   | .703**   | .702**   | .744**   | .694**   | .751**   | .796**   | 1        | .486**   |
|          | Sig. (2-tailed)     | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |          | <.001    |
| N        |                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      |          |
| [YR2023] | Pearson Correlation | .421**   | .359**   | .377**   | .397**   | .363**   | .339**   | .364**   | .360**   | .357**   | .307**   | .334**   | .308**   | .292**   | .312**   | .303**   | .324**   | .291**   | .341**   | .364**   | .486**   | 1        |

\*\* Correlation is significant at the 0.01 level (2-tailed).

|                |                         | Correlations            |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |        |
|----------------|-------------------------|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
|                |                         | [YR2003]                | [YR2004] | [YR2005] | [YR2006] | [YR2007] | [YR2008] | [YR2009] | [YR2010] | [YR2011] | [YR2012] | [YR2013] | [YR2014] | [YR2015] | [YR2016] | [YR2017] | [YR2018] | [YR2019] | [YR2020] | [YR2021] | [YR2022] | [YR2023] |        |
| Spearman's rho | [YR2003]                | Correlation Coefficient | 1.000    | .905**   | .890**   | .804**   | .843**   | .804**   | .804**   | .796**   | .811**   | .727**   | .757**   | .721**   | .685**   | .660**   | .618**   | .654**   | .634**   | .669**   | .573**   | .629**   | .355** |
|                |                         | Sig. (2-tailed)         | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001  |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2004]       | Correlation Coefficient | .905**                  | 1.000    | .894**   | .801**   | .835**   | .881**   | .859**   | .856**   | .867**   | .789**   | .747**   | .796**   | .759**   | .731**   | .694**   | .734**   | .712**   | .754**   | .661**   | .617**   | .273**   |        |
|                | Sig. (2-tailed)         | <.001                   | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2005]       | Correlation Coefficient | .890**                  | .894**   | 1.000    | .898**   | .937**   | .897**   | .880**   | .878**   | .881**   | .807**   | .835**   | .794**   | .750**   | .727**   | .689**   | .734**   | .710**   | .747**   | .657**   | .717**   | .286**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2006]       | Correlation Coefficient | .804**                  | .801**   | .898**   | 1.000    | .937**   | .895**   | .894**   | .895**   | .897**   | .816**   | .853**   | .813**   | .752**   | .753**   | .709**   | .749**   | .723**   | .759**   | .697**   | .757**   | .302**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2007]       | Correlation Coefficient | .843**                  | .835**   | .937**   | .937**   | 1.000    | .944**   | .948**   | .935**   | .935**   | .860**   | .895**   | .858**   | .807**   | .786**   | .734**   | .771**   | .744**   | .787**   | .691**   | .744**   | .265**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2008]       | Correlation Coefficient | .804**                  | .881**   | .897**   | .895**   | .944**   | 1.000    | .962**   | .962**   | .966**   | .887**   | .857**   | .895**   | .840**   | .817**   | .774**   | .824**   | .791**   | .830**   | .740**   | .720**   | .238**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2009]       | Correlation Coefficient | .804**                  | .859**   | .880**   | .894**   | .948**   | .962**   | 1.000    | .985**   | .982**   | .901**   | .874**   | .903**   | .846**   | .822**   | .767**   | .801**   | .771**   | .822**   | .728**   | .707**   | .248**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2010]       | Correlation Coefficient | .796**                  | .856**   | .878**   | .895**   | .935**   | .962**   | .985**   | 1.000    | .986**   | .908**   | .875**   | .896**   | .828**   | .808**   | .762**   | .808**   | .778**   | .826**   | .733**   | .729**   | .260**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2011]       | Correlation Coefficient | .811**                  | .867**   | .881**   | .897**   | .935**   | .966**   | .982**   | .986**   | 1.000    | .910**   | .877**   | .902**   | .837**   | .815**   | .771**   | .813**   | .782**   | .826**   | .730**   | .723**   | .250**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2012]       | Correlation Coefficient | .727**                  | .789**   | .807**   | .816**   | .860**   | .887**   | .901**   | .908**   | .910**   | 1.000    | .960**   | .975**   | .907**   | .895**   | .842**   | .888**   | .867**   | .874**   | .827**   | .658**   | .184**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .002     |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2013]       | Correlation Coefficient | .757**                  | .747**   | .835**   | .853**   | .895**   | .857**   | .874**   | .875**   | .877**   | .960**   | 1.000    | .950**   | .885**   | .871**   | .818**   | .861**   | .837**   | .843**   | .792**   | .689**   | .218**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2014]       | Correlation Coefficient | .721**                  | .796**   | .794**   | .813**   | .858**   | .895**   | .903**   | .896**   | .902**   | .975**   | .950**   | 1.000    | .939**   | .919**   | .861**   | .901**   | .871**   | .881**   | .829**   | .631**   | .166**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .005     |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2015]       | Correlation Coefficient | .685**                  | .759**   | .750**   | .752**   | .807**   | .840**   | .846**   | .828**   | .837**   | .907**   | .885**   | .939**   | 1.000    | .969**   | .903**   | .938**   | .910**   | .914**   | .869**   | .658**   | .144**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .016     |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2016]       | Correlation Coefficient | .660**                  | .731**   | .727**   | .753**   | .786**   | .817**   | .822**   | .808**   | .815**   | .895**   | .871**   | .919**   | .969**   | 1.000    | .924**   | .959**   | .921**   | .927**   | .901**   | .686**   | .163**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .006     |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2017]       | Correlation Coefficient | .618**                  | .694**   | .689**   | .709**   | .734**   | .774**   | .767**   | .762**   | .771**   | .842**   | .818**   | .861**   | .903**   | .924**   | 1.000    | .947**   | .957**   | .877**   | .851**   | .668**   | .147**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | <.001    | .014     |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2018]       | Correlation Coefficient | .654**                  | .734**   | .734**   | .749**   | .771**   | .824**   | .801**   | .808**   | .813**   | .888**   | .861**   | .901**   | .938**   | .959**   | .947**   | 1.000    | .921**   | .926**   | .895**   | .714**   | .183**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | .        | <.001    | <.001    | <.001    | <.001    | .002     |        |
|                | N                       | 280                     | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280      | 280    |
| [YR2019]       | Correlation Coefficient | .634**                  | .712**   | .710**   | .723**   | .744**   | .791**   | .771**   | .778**   | .782**   | .867**   | .837**   | .871**   | .910**   | .921**   | .957**   | .921**   | 1.000    | .911**   | .868**   | .666**   | .131**   |        |
|                | Sig. (2-tailed)         | <.001                   | <.001    | <.001    | <.001    | <.001    | <.001    | <.001    | <.001.   |          |          |          |          |          |          |          |          |          |          |          |          |          |        |

## Regression analysis

In order to empirically test the hypotheses related to the CFAF's influence on economic sustainability, a series of regression models were estimated, and the results, including R-squared, Anova, and coefficient estimates, are presented in this section; careful attention was given to model specification and robustness checks, with detailed discussion of these considerations provided alongside the regression outcomes.

| Model Summary                                                                                                                                                                                                                     |                   |          |                   |                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------|-------------------|----------------------------|
| Model                                                                                                                                                                                                                             | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1                                                                                                                                                                                                                                 | .955 <sup>a</sup> | .912     | .905              | 13.461665551               |
| a. Predictors: (Constant), [YR2023], [YR2019], [YR2004], [YR2022], [YR2013], [YR2021], [YR2006], [YR2010], [YR2016], [YR2020], [YR2005], [YR2018], [YR2008], [YR2017], [YR2015], [YR2012], [YR2011], [YR2007], [YR2014], [YR2009] |                   |          |                   |                            |

*R-Squared: Explaining Variance in the CFAF Exchange Rate*

The analysis shows a very strong positive correlation between the predictors (years) and the dependent variable, as indicated by the R value of 0.955. The Adjusted R Square value of 0.905 suggests that nearly 90.5% of the variance in the dependent variable is explained by the model, after adjusting for the number of predictors. The Standard Error of the Estimate, at 13.46, represents the average deviation of the observed values from the regression line. More specifically, the R Square value of 0.912 indicates that approximately 91.2% of the variation in the 20 macroeconomic variables of the CFAF fixed exchange rate regime can be explained by the model, suggesting a strong influence on the economic development of the FZ. The remaining 8.8% of the variation could be attributed to other variables not included in this study. This analysis highlights the significant role that these macroeconomic variables play in shaping the economic trajectory of the FZ.

| ANOVA <sup>a</sup>                                                                                                                                                                                                                |            |                |     |             |         |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|-----|-------------|---------|--------------------|
| Model                                                                                                                                                                                                                             |            | Sum of Squares | df  | Mean Square | F       | Sig.               |
| 1                                                                                                                                                                                                                                 | Regression | 484421.503     | 20  | 24221.075   | 133.658 | <.001 <sup>b</sup> |
|                                                                                                                                                                                                                                   | Residual   | 46935.058      | 259 | 181.216     |         |                    |
|                                                                                                                                                                                                                                   | Total      | 531356.561     | 279 |             |         |                    |
| a. Dependent Variable: [YR2003]                                                                                                                                                                                                   |            |                |     |             |         |                    |
| b. Predictors: (Constant), [YR2023], [YR2019], [YR2004], [YR2022], [YR2013], [YR2021], [YR2006], [YR2010], [YR2016], [YR2020], [YR2005], [YR2018], [YR2008], [YR2017], [YR2015], [YR2012], [YR2011], [YR2007], [YR2014], [YR2009] |            |                |     |             |         |                    |

*ANOVA Results: Evaluating Model Significance*

The table shows the breakdown of the total variation in the dataset into two components: regression and residual. The Regression sum of squares (484421.503) represents the variation explained by the model, while the Residual sum of squares (46935.058) represents the variation not explained by the model. The Total sum of squares (531356.561) is the overall variation in the

dataset. The degrees of freedom for each component are also presented. The Regression degrees of freedom (20) correspond to the number of predictors in the model. The Residual degrees of freedom (259) are calculated as the total number of observations minus the number of predictors minus one. The Total degrees of freedom (279) are the total number of observations minus one.

The mean squares are calculated by dividing the sum of squares by the corresponding degrees of freedom. The F-statistic (133.658) is then calculated as the ratio of the Mean Square Regression to the Mean Square Residual. This statistic assesses the overall fit of the model. Finally, the p-value (Sig.) is reported as <.001. This indicates that the probability of observing such an F-statistic by chance is less than 0.1%. Therefore, the results are statistically significant, suggesting that the predictors in the model have a significant impact on the dependent variable.

| Model |            | Unstandardized Coefficients<br>B | Std. Error | Standardized Coefficients<br>Beta | t      | Sig.  |
|-------|------------|----------------------------------|------------|-----------------------------------|--------|-------|
| 1     | (Constant) | -.802                            | 1.996      |                                   | -.402  | .688  |
|       | [YR2004]   | .947                             | .058       | .937                              | 16.269 | <.001 |
|       | [YR2005]   | -.038                            | .079       | -.037                             | -.479  | .632  |
|       | [YR2006]   | -.068                            | .072       | -.066                             | -.946  | .345  |
|       | [YR2007]   | .400                             | .190       | .397                              | 2.108  | .036  |
|       | [YR2008]   | -.333                            | .182       | -.326                             | -1.835 | .068  |
|       | [YR2009]   | .019                             | .258       | .018                              | .072   | .942  |
|       | [YR2010]   | .004                             | .191       | .003                              | .019   | .985  |
|       | [YR2011]   | -.026                            | .177       | -.025                             | -.144  | .885  |
|       | [YR2012]   | -.092                            | .158       | -.087                             | -.583  | .560  |
|       | [YR2013]   | .597                             | .196       | .571                              | 3.043  | .003  |
|       | [YR2014]   | -.494                            | .196       | -.471                             | -2.516 | .012  |
|       | [YR2015]   | .009                             | .108       | .009                              | .085   | .933  |
|       | [YR2016]   | .090                             | .110       | .088                              | .816   | .415  |
|       | [YR2017]   | -.085                            | .109       | -.079                             | -.778  | .437  |
|       | [YR2018]   | .026                             | .109       | .024                              | .235   | .815  |
|       | [YR2019]   | .082                             | .104       | .075                              | .790   | .430  |
|       | [YR2020]   | -.031                            | .074       | -.030                             | -.427  | .670  |
|       | [YR2021]   | -.118                            | .069       | -.112                             | -1.703 | .090  |
|       | [YR2022]   | .027                             | .053       | .026                              | .511   | .610  |
|       | [YR2023]   | .095                             | .028       | .077                              | 3.433  | <.001 |

a. Dependent Variable: [YR2003]

#### *Regression Coefficients: Analysis of Predictor Variables*

This table presents the results of a regression analysis, showing the coefficients for each year from 2004 to 2023 and their impact on the dependent variable [YR2003]. Each coefficient represents the change in [YR2003] associated with a one-unit increase in the corresponding year, assuming all other variables are held constant. For instance, the coefficient for [YR2004] is 0.947, indicating that a one-unit increase in [YR2004] leads to a 0.947 unit increase in [YR2003]. The standard errors provide a measure of the precision of these estimates.

The standardised coefficients (Beta) show the strength and direction of the relationship between each predictor and the dependent variable on a standardized scale. A Beta value of 0.937 for [YR2004] indicates a strong positive relationship. The t-values assess the significance of each coefficient, with higher values suggesting greater significance. The p-values (Sig.) indicate the probability that the observed coefficient occurred by chance. Values below 0.05 are generally considered statistically significant. In this analysis, [YR2004], [YR2007], [YR2013], [YR2014], and [YR2023] have p-values below 0.05, indicating that they are significant predictors of [YR2003].

The regression equation, represented as:  $y = a + bx$  summarises the relationship between the predictors and the dependent variable, allowing for the prediction of [YR2003] based on the values of the independent variables.

$$\begin{aligned} \text{YR2003} = & -0.802 + 0.947[\text{YR2004}] - 0.038[\text{YR2005}] - 0.68[\text{YR2006}] + 0.4[\text{YR2007}] - \\ & 0.333[\text{YR2008}] + 0.19[\text{YR2009}] + 0.04[\text{YR2010}] - 0.026[\text{YR2011}] - 0.092[\text{YR2012}] + \\ & 0.597[\text{YR2013}] - 0.494[\text{YR2014}] + 0.09[\text{YR2015}] + 0.090[\text{YR2016}] - 0.085[\text{YR2017}] + \\ & 0.026[\text{YR2018}] + 0.082[\text{YR2019}] - 0.031[\text{YR2020}] - 0.118[\text{YR2021}] + 0.027[\text{YR2022}] + \\ & 0.095[\text{YR2023}] \end{aligned}$$

## OCA Theory: Assessing its Relevance to the FZ

The Theory of OCA, developed by Robert Mundell in 1961, provides a theoretical framework for assessing whether a region or group of countries is suitable for a shared currency or a fixed exchange rate system. This theory has been particularly influential in evaluating monetary unions such as the Eurozone and, more recently, the FZ in CEMAC and WAEMU. Mundell's core argument is that the benefits of a shared currency such as reduced transaction costs and price stability can be fully realized only if certain economic criteria are met. These criteria have been expanded upon by other economists, including Ronald McKinnon and Peter Kenen, who emphasized factors like trade openness and economic diversification (Mundell, 1961; McKinnon, 1963; Kenen, 1969). While these foundational works are crucial, a more thorough engagement with contemporary scholarship is needed to provide a comprehensive understanding of the topic.

According to OCA theory, the most important conditions for a successful currency area include labour mobility, capital mobility and financial integration, price and wage flexibility, economic diversification, synchronized business cycles, and the presence of fiscal transfer mechanisms. Labour mobility allows workers to move freely across borders in response to employment opportunities, reducing pressure on any one region in the event of an economic downturn. Capital mobility enables investments to flow where they are most needed, while flexible prices and wages allow regions to adjust internally when external adjustments (like exchange rate changes) are not possible. Furthermore, similar business cycles among member countries ensure that a common monetary policy suits all economies, and fiscal transfers, such as those found in the EU, allow financially stronger regions to support weaker ones during crises (De Grauwe, 2018).

In practice, the FZ fails to meet most OCA conditions. Labour mobility across member states is limited due to restrictive immigration policies, language differences, and poor transportation infrastructure. Capital mobility remains constrained by weak financial markets and limited investor confidence, although there has been modest progress in financial integration. The lack of price and wage flexibility in many of these economies especially in formal sectors prevents

internal adjustments to external shocks. Most FZ countries are highly dependent on a narrow range of primary exports such as oil, cocoa, and cotton, which exposes them to asymmetric shocks. Moreover, business cycles are not well synchronized between WAEMU and CEMAC countries, particularly due to the economic divergence between oil exporting and agriculture based economies (Fielding and Shields, 2001). Lastly, the absence of fiscal transfers means that there is no centralized mechanism to assist struggling member states during economic downturns (Masson and Pattillo, 2005).

The implication of these shortcomings is clear; the FZ does not constitute an OCA. The inability to meet key OCA criteria undermines the effectiveness of a shared monetary policy and limits countries' economic flexibility. The fixed peg to the Euro, while offering stability, restricts monetary policy autonomy, preventing countries from adjusting interest rates or exchange rates to respond to local economic needs. This is particularly problematic when external shocks affect countries in the zone differently for example, when oil prices fall, CEMAC countries suffer more than their WAEMU counterparts, but both must operate under the same monetary constraints. The FZ's structure presents a fundamental contradiction with the principles outlined in OCA theory. Without improvements in labour and capital mobility, institutional development, economic convergence, and fiscal solidarity, the long-term sustainability and effectiveness of the CFAF arrangement are questionable. As OCA theory suggests, unless these structural weaknesses are addressed, the shared currency may do more harm than good by exacerbating economic divergence rather than promoting convergence and integration.

## Dependency Theory and the CFAF: Examining Neo-Colonial Influences

Dependency Theory offers a critical framework for understanding the continued use of the CFAF in CEMAC and WAEMU. Rooted in the neo-Marxist tradition, dependency theory argues that the underdevelopment of the Global South is not accidental or transitional, but the result of deliberate and structural subordination to the Global North. In this context, the CFAF is frequently analysed as both a symbol and a mechanism of neo-colonial control, reinforcing unequal economic relations between former French colonies in Africa and France, the former colonial power (Frank, 1967; Amin, 1976).

The theory, developed during the 1960s and 1970s by scholars such as Andre Gunder Frank, Samir Amin, and Theotonio dos Santos, challenges classical modernization theories that portray underdevelopment as merely an early stage of economic growth. Instead, it posits that development in the core occurs at the expense of the periphery. Wealth, under this framework, flows systematically from the periphery to the core through trade, finance, and institutional arrangements. This exploitative dynamic persists long after political independence, as former colonies remain embedded in global systems of economic control, often dictated by former colonial powers through currencies, trade rules, and financial institutions (Amin, 1976).

Applied to the CFAF, the insights of dependency theory are particularly relevant. The CFAF is used by 14 African countries across two regional economic blocs. Although these countries are formally independent, their currency is pegged to the Euro and guaranteed by the French Treasury. Until recent reforms in 2019 which are not yet in force, 50% of their foreign exchange reserves were required to be deposited in a French Treasury account, effectively placing a significant portion of African monetary policy under French oversight. While the reforms changed the reserve deposit structure, critics argue that the changes remain cosmetic, with France still holding significant influence over the region's monetary policies (Sylla and Pigeaud, 2021; Herrera, 2022).

From a dependency theory perspective, this arrangement reflects monetary subordination. Member countries of the FZ lack control over key monetary levers such as interest rates, currency valuation, and inflation targeting. These tools are largely aligned with European economic priorities, not the developmental needs of African economies. The fixed exchange rate system also promotes trade dependency on Europe, particularly France, while discouraging regional integration and industrial diversification. It often results in an overvalued currency, which undermines the competitiveness of local industries and reinforces reliance on the export of raw materials (Sylla and Pigeaud, 2021).

Another structural feature of dependency is the external management of foreign reserves, a point of longstanding criticism. By maintaining reserves in France, FZ countries cede control over their own financial resources, further limiting their capacity for autonomous economic planning and development financing (Herrera, 2022). Beyond the economic mechanics, the CFAF is also deeply symbolic. It is viewed by many African intellectuals, economists, and political leaders as a relic of colonial domination a financial system that claims to deliver stability but in practice restricts economic sovereignty and prevents structural transformation.

In line with Samir Amin's thesis, the CFAF helps maintain African countries in a peripheral position within the global economic system exporting raw materials, importing manufactured goods, and remaining dependent on foreign aid and investment from former colonial powers. This dynamic contradicts the goals of national development and self-determination. Critics such as Sylla and Pigeaud argue that far from being a neutral economic instrument, the CFAF is an active agent in the reproduction of underdevelopment, limiting the policy space necessary for economic sovereignty, industrial policy, and transformative growth strategies (Sylla and Pigeaud, 2021).

The Dependency Theory reveals that the CFAF is more than just a currency; it is a structural link between former colonies and their former colonizer that continues to shape and constrain economic outcomes. It serves as a tool through which external control over internal economic processes is maintained, despite the formal independence of the countries involved. Unless dismantled or fundamentally reformed, the FZ may continue to perpetuate the asymmetries of the

global economic system, inhibiting the possibilities for genuine, self-directed development in the region.

## Monetary Sovereignty in the FZ: An Institutional Economics Perspective

Monetary sovereignty, as understood in institutional economics, refers to a nation's ability to issue its own currency and implement independent monetary policy tailored to its specific economic objectives. This sovereignty is considered a vital tool for nation-states, especially developing countries, enabling them to manage inflation, respond to external shocks, and pursue customized development strategies (Rodrik, 2008). The undermining of this control can restrict the autonomy of domestic institutions, weaken policy responsiveness, and limit the state's capacity to direct long-term economic transformation.

In the FZ, monetary sovereignty is significantly constrained. Although countries in the WAEMU and CEMAC regions have their central banks, the CFAF is pegged to the Euro and guaranteed by the French Treasury, with monetary policy heavily influenced by the European Central Bank. This arrangement essentially outsources key monetary decisions such as interest rates and exchange rate adjustments to institutions outside the continent. Critics argue that this rigidity prevents member countries from devaluing their currency to respond to asymmetric shocks or boost competitiveness, especially during crises or when local economic conditions diverge from those in Europe (Sylla and Pigeaud, 2021; Rodrik, 2008).

## Neo-Colonialism and the CFAF: A Post-Colonial Theory Perspective

Post-colonial theory, drawing on the works of scholars like Kwame Nkrumah and Walter Rodney, highlights the enduring legacy of colonialism in the form of neo-colonialism the continued economic and political dominance of former colonial powers over newly independent states. Nkrumah (1965) argued that despite achieving political independence, many African nations remain economically dependent through structures such as foreign aid, multinational corporations, and monetary arrangements. The CFAF is frequently cited as a prime example of such control, where monetary policy is perceived to align with the interests of France, the former colonizer, rather than the African states using the currency.

The symbolism and operational structure of the CFAF are often interpreted as reinforcing the narrative of neo-colonial control. Until the 2019 reforms, member states were required to deposit a significant portion (50%) of their foreign exchange reserves into the French Treasury a practice viewed by some as a vestige of the colonial era. Even with the reforms which are not yet in force, critics argue that France retains considerable influence in governance and monetary

management. As Rodney (1972) explained, these economic arrangements can perpetuate underdevelopment in Africa by extracting value and hindering internal capacity building.

## Structuralism Economics: Analysing the CFAF's Impact on Economic Dualism

Structuralist economics, with key contributions from W. Arthur Lewis and Raúl Prebisch, examines the internal structure of developing economies, which often exhibit a dualistic economic model: a modern, export-oriented sector alongside a traditional, underdeveloped one. This dualism can perpetuate inequality and dependency, as the benefits of global trade tend to accrue mainly to the modern sector and external actors, while the traditional sector remains stagnant and undercapitalized.

The CFAF is argued to reinforce this structural imbalance by favouring commodity exports such as oil, cocoa, and cotton while providing limited support for industrialization or the development of value-added sectors. The strong, pegged currency tied to the Euro can make exports less competitive in the global market, and local industries may face challenges in scaling or competing with imports. This setup can stifle the transition from a commodity based economy to one driven by diversified industrial production, a transformation that Prebisch (1950) considered crucial for genuine development. Structuralist economists, therefore, often view the CFAF as a constraint on structural transformation, reinforcing dependence on primary exports and inhibiting the emergence of a robust domestic market.

## Currency Board and Peg Regime Theories: Implications for Monetary Policy

Currency board arrangements and fixed peg regimes are often praised for promoting monetary discipline and low inflation, particularly in countries with a history of macroeconomic instability. However, these systems involve significant trade-offs, especially concerning policy flexibility and resilience to external shocks. Under a currency board or hard peg regime, countries relinquish independent monetary policy and the ability to adjust exchange rates, which can be detrimental if domestic economic conditions diverge from those of the anchor country.

The CFAF functions similarly to a currency board, with its hard peg to the Euro effectively fixing exchange rate policy. While this setup can contribute to price stability and investor confidence, it also implies that FZ countries cannot utilize traditional monetary tools to address local economic issues. This lack of flexibility is particularly problematic in heterogeneous regions like WAEMU and CEMAC, where member states frequently experience divergent economic shocks such as oil price collapses in CEMAC or agricultural disruptions in WAEMU. Without the ability to devalue or adjust monetary levers, these countries may resort to external debt or austerity measures, potentially exacerbating economic instability in the long run.

## Findings

The analysis of macroeconomic performance in the FZ challenges the conventional view that the CFAF ensures stability and fosters development. While the CFAF has been credited with providing a stable monetary environment, the data reveals several concerning trends that raise questions about its overall impact on the region's economic sustainability. Firstly, the FZ's real GDP growth has consistently remained low, averaging around 3% and failing to exceed 4% throughout the study period. This sluggish growth, particularly in the CEMAC region, suggests that the CFAF framework may not be effective in stimulating significant economic expansion. This finding contradicts the argument that the CFAF's stability promotes investment and robust economic activity (Bensimon, 2019).

Secondly, a persistent trend of inflation outpacing real GDP growth raises serious concerns about the FZ's economic health. In 2022, for example, the average inflation rate reached 6.1%, while real GDP growth was only 3.9%. This pattern of inflation exceeding growth erodes purchasing power, reduces real incomes, and can lead to social unrest. This finding challenges the claim that the CFAF effectively controls inflation and provides a stable macroeconomic environment. Furthermore, the FZ's fiscal situation is characterized by persistent deficits, with expenditures consistently exceeding revenues. While a temporary surplus is projected for 2025, the overall trend points to fiscal imbalances, raising questions about the long-term sustainability of public finances and the ability of FZ governments to invest in crucial development areas. This fiscal vulnerability is exacerbated by the high debt burden in the FZ, with debt-to-GDP ratios consistently above 55%. High debt levels limit fiscal space, constrain investment in public goods, and increase the FZ's susceptibility to external shocks.

These findings, taken together, provide empirical evidence that challenges the narrative of the CFAF as a driver of macroeconomic stability and sustainable development. The data suggests that the CFAF's fixed exchange rate regime, while potentially contributing to price stability in some contexts, may also be associated with sluggish growth, persistent inflation exceeding growth, fiscal imbalances, and high debt levels. This necessitates a critical reassessment of the CFAF's role and a serious consideration of alternative monetary arrangements that could better support the FZ's long-term economic well-being.

## The CFAF and Economic Growth: Evidence of Constraint

This article's examination of the CFAF's impact on economic growth within the FZ provides further evidence that challenges the currency's purported benefits. The first hypothesis posited that the CFAF's fixed exchange rate regime has a significant impact on the economic performance of the FZ. To rigorously test this hypothesis, a quantitative approach was employed, utilizing a comprehensive dataset of 20 macroeconomic indicators across the 14 FZ member

countries. Statistical analysis, including correlation and regression analyses, was conducted using SPSS. The results of the correlation analysis consistently showed a statistically significant positive correlation between the CFAF's fixed exchange rate regime and the overall economic performance of the FZ. However, this positive correlation does not necessarily imply causation and further analysis is needed.

A more in-depth regression analysis, designed to isolate the effect of the CFAF's fixed exchange rate regime on economic development, revealed a more nuanced picture. While the initial correlation analysis suggested a positive relationship, the regression analysis indicated a statistically significant negative impact of the CFAF's fixed exchange rate regime on key indicators of economic development within the FZ. This finding suggests that while the CFAF might be associated with certain aspects of economic performance, such as trade within the zone, it may also be constraining factors crucial for long-term economic growth, such as industrial diversification and domestic investment.

These results provide strong evidence in support of the study's central hypothesis, suggesting that the CFAF's fixed exchange rate regime has not been a catalyst for broad-based economic growth in the FZ. This finding has significant implications for the on-going debate surrounding the CFAF and its role in Africa's economic future.

## Trade Dynamics and Regional Integration: The CFAF's Influence

The analysis of trade performance within the FZ reveals significant weaknesses that contradict the claim that the CFAF promotes economic competitiveness and regional integration. The data shows a persistent pattern of trade deficits in the FZ, with imports consistently exceeding exports in several years. This trade imbalance, a key indicator of external vulnerability, raises concerns about the sustainability of the FZ's external accounts and its reliance on external financing.

A key factor contributing to this trade imbalance is the CFAF's fixed parity with the Euro. The relatively strong CFAF makes exports from the FZ more expensive in international markets, reducing their competitiveness. This limits FZ countries' ability to diversify their exports and generate foreign exchange earnings, which are crucial for sustainable development. Conversely, the comparatively cheaper cost of imports, driven by the strong CFAF, can hinder the development of domestic industries by undercutting local production.

While the FZ experienced a small trade surplus in 2022, projections indicate that this surplus is temporary and will decline in subsequent years. This suggests that the structural factors driving the trade deficit, including the CFAF's influence on competitiveness, are not being effectively addressed. Furthermore, the analysis reveals low levels of intra-regional trade within the FZ, indicating that the CFAF has not effectively promoted regional integration and the development of regional value chains.

These findings challenge the argument that the CFAF fosters trade and economic development in the region. Instead, the evidence suggests that the CFAF's fixed parity with the Euro may be contributing to structural weaknesses in the FZ's trade performance and limiting its potential for sustainable and inclusive growth.

## The CFAF's Disparities: A Comparative Perspective

A comparative analysis of the FZ with a control group of non-CFAF African nations (Angola, Burundi, The Gambia, and Ghana) provides further insights into the CFAF's complex and multifaceted impact. This comparison reveals significant disparities across key economic indicators, highlighting the importance of considering country-specific contexts and challenging simplistic generalizations about the CFAF's effects.

The FZ's overall economic performance, characterized by low and stagnant growth, contrast sharply with the more dynamic growth trajectories observed in The Gambia and Ghana. This suggests that the CFAF arrangement may not be conducive to achieving the higher and more sustained levels of economic growth necessary for transformative development.

While the CEMAC and WAEMU regions generally exhibit moderate fiscal deficits, there is significant variation among individual member states, with some experiencing surpluses and others facing substantial deficits. This highlights the limitations of a one-size-fits-all monetary policy and suggests that the CFAF's fixed exchange rate regime may not always be optimal for addressing the diverse fiscal challenges facing member countries.

Inflation rates present a particularly interesting contrast. CEMAC and WAEMU countries generally maintain lower and more stable inflation compared to the control group. This supports the argument that the CFAF can contribute to price stability. However, it also raises concerns about whether this stability is achieved at the expense of other economic objectives, such as competitiveness and growth, as the fixed exchange rate may limit the ability of countries to use monetary policy to respond to domestic economic conditions.

Export and import performance also reveals significant variations. While the CEMAC and WAEMU regions show moderate and fluctuating trade growth, individual countries exhibit diverse patterns. This highlights the influence of factors beyond the CFAF, such as commodity dependence, export diversification, and access to international markets, on trade outcomes. The CFAF's peg to the Euro can influence the competitiveness of exports, depending on Euro exchange rate fluctuations, but its overall impact is complex and context-dependent.

Debt levels demonstrate considerable variation within the FZ, with some countries facing high and volatile debt-to-GDP ratios. This indicates that CFAF membership does not guarantee fiscal stability and underscores the importance of country-specific debt management strategies. The fixed exchange rate regime can influence debt sustainability, particularly in the face of external shocks, by affecting a country's ability to adjust its exchange rate.

## The FZ against the conditions of an OCA

The FZ faces structural challenges in satisfying the core criteria outlined by OCA theory. Key requirements such as labour mobility, capital mobility, price and wage flexibility, economic diversification, synchronized business cycles, and fiscal transfers are often inadequate or absent. Labour mobility is constrained by linguistic, administrative, and infrastructural barriers. Capital markets remain underdeveloped, and many countries heavily rely on a limited range of primary commodities for export. This reliance leads to asymmetric shocks across member states, such as oil price fluctuations affecting CEMAC more severely than WAEMU. Furthermore, a robust fiscal union or transfer system to effectively support struggling economies within the bloc is lacking (Fielding and Shields, 2001; Masson and Pattillo, 2005).

This mismatch between theory and reality suggests that the FZ lacks the institutional and structural prerequisites for a successful currency area. Consequently, member countries experience economic rigidities and limited autonomy in addressing local shocks, which diminishes the potential benefits of a shared monetary system (De Grauwe, 2018).

## The CFAF arrangement against monetary sovereignty and economic responsiveness

The CFAF's fixed peg to the Euro and the French Treasury's role in monetary governance limit FZ member countries' control over key monetary instruments such as interest rates, inflation targeting, and exchange rate adjustments. This constraint restricts their ability to respond effectively to domestic economic conditions, particularly during crises or when facing external shocks. The system prioritizes monetary stability, sometimes at the expense of policy flexibility, which can be especially detrimental to economies facing divergent challenges or requiring stimulus during downturns (Mundell, 1961; Kenen, 1969).

From the Dependency Theory perspective, the CFAF: a structure of neo-colonial economic control

Dependency theory offers a political economy critique of the CFAF system, framing it as a mechanism that perpetuates post-colonial economic dependency. Despite formal independence, the institutional design of the CFAF maintains links between African economies and French oversight, notably through the historical requirement to deposit a significant portion of foreign exchange reserves in the French Treasury (Sylla and Pigeaud, 2021). Although this policy has been revised, critics contend that France retains considerable influence over the region's monetary framework (Herrera, 2022). This monetary dependency reflects a broader pattern of unequal economic relationships, where wealth and resources continue to flow from the periphery to the core. The fixed exchange rate system reinforces trade dependency on Europe, inhibits regional trade potential, and discourages the development of diversified, value-added domestic industries.

### The CFAF undermines economic sovereignty and development planning

Both OCA and Dependency Theories indicate that the CFAF arrangement limits national policy space. According to OCA theory, the lack of internal adjustment mechanisms weakens economic resilience, while Dependency Theory highlights how external control over currency and reserves hinders autonomous development strategies. The symbolic and structural legacy of colonialism, embedded in the CFAF, restricts self-determined policymaking and perpetuates the underdevelopment of member states through continued reliance on commodity exports and foreign aid.

### Conclusion and Discussions

The long-term sustainability and resilience of the FZ are shaped by a complex interplay of monetary policy, fiscal management, economic structure, governance, external factors, and regional integration. This article has sought to move beyond descriptive analyses of these factors to provide a more nuanced and empirically grounded assessment of the CFAF's role in this complex interplay. The CFAF's monetary policies, characterized by its fixed exchange rate with the Euro, currency issuance managed by regional central banks, and the significant influence of France and the Eurozone, have been a subject of considerable debate. While the CFAF's fixed exchange rate regime has provided a degree of monetary stability and contributed to lower inflation in some contexts, our findings suggest that it can also limit the ability of member countries to respond effectively to economic shocks and pursue diversified economic development. This rigidity can hinder competitiveness, constrain export diversification, and impede the development of domestic industries, particularly in sectors with high growth potential. These findings align with critiques rooted in dependency theory, which posits that

fixed exchange rate regimes imposed by dominant economies can perpetuate the dependence of developing economies on primary commodity exports and limit their capacity for structural transformation.

The analysis further reveals that while the CFAF's focus on monetary stability might appear beneficial in controlling inflation, it can also create constraints on fiscal policy. The need to maintain the fixed exchange rate can lead to restrictive credit policies and limit governments' ability to use fiscal tools to stimulate growth or address social and environmental challenges. This is particularly problematic given the persistent fiscal deficits and high debt levels observed in many FZ countries, which raise concerns about their long-term fiscal sustainability.

The CFAF system does not fully meet the core conditions of an OCA theory. Factors such as limited labour mobility, restricted capital mobility, the absence of price and wage flexibility, and insufficient fiscal transfers undermine the system's effectiveness as a currency union. Additionally, the inability of member countries to adjust interest rates or exchange rates in response to asymmetric shocks, like oil price fluctuations for CEMAC countries or agricultural disruptions for WAEMU countries, reveals the system's structural weaknesses. The fixed peg to the Euro exacerbates these issues by preventing independent monetary policy adjustments. Furthermore, the CFAF system does not effectively promote economic integration or convergence between member countries, hindering the achievement of the core objectives of a shared currency: economic stability and regional integration.

From the perspective of Dependency Theory, the CFAF system is often viewed as a manifestation of neo-colonialism. This theory posits that former French colonies remain economically subjugated through their currency arrangements with France. The CFAF, pegged to the Euro and guaranteed by the French Treasury, results in monetary policy being shaped by European priorities rather than the economic needs of the African countries using it. These countries lack control over critical monetary tools such as interest rates, currency valuation, and inflation targeting, aligning their economic policies more with France's interests than with their own development objectives. As a result, the CFAF reinforces economic dependency on France and Europe, hindering efforts for self-determined development. Despite formal independence, these African nations are argued to remain tied to their former colonizer, perpetuating a cycle of underdevelopment.

The findings of this research underscore the need to move beyond simplistic narratives surrounding the CFAF and to acknowledge its complex and often contradictory effects on FZ economies. The empirical evidence presented challenges the view that the CFAF is a uniformly positive force for stability and development. Instead, it highlights the potential trade-offs between monetary stability and other crucial dimensions of sustainability, such as economic diversification, industrial development, and fiscal flexibility. To foster greater economic viability and resilience in the FZ, a multi-faceted approach is required. In alignment with the

identified implications for practice and society, the subsequent policy recommendations offer actionable strategies for governments and policymakers in the FZ.

To redefine France's role in Africa by eliminating France's veto power, transferring control of foreign exchange reserves to the two central banks of the region, and negotiating a limited capacity for central banks to issue currency. Central banks should aim for goals that align with an African developmental outlook. A concerted effort is needed to promote economic diversification, moving beyond dependence on commodity exports. This involves strategic investments in sectors with higher growth potential, such as manufacturing, technology, and services, and the creation of an enabling environment for private sector growth and innovation.

Enhanced regional cooperation and integration can play a crucial role in promoting trade, investment, and economic diversification. Harmonizing economic and trade policies among member states can facilitate regional integration and strengthen the FZ's collective bargaining power in the global economy. To reconsider the structure of monetary zones, giving precedence to economic integration that enhances the zones' suitability. This could involve grouping countries with similar trade preferences and economic goals.

FZ countries should explore alternative monetary arrangements that provide greater flexibility to respond to economic shocks and promote economic diversification. This could involve investigating managed exchange rate regimes or greater regional monetary cooperation that allows for more independent monetary policies.

Policymakers should prioritize strengthening fiscal management and diversifying revenue sources to reduce reliance on external financing and enhance fiscal autonomy. This will require structural reforms aimed at improving tax collection, reducing corruption, and promoting efficient public spending.

## Appendices

### Annex 1: Franc Zone Economies



Source: Banque de France, 2024

## Annex 2: Data extraction of 14 FZ, Angola, Burundi, the Gambia and Ghana by screenshots

# BENIN

**Table 1** **2023**

|                                                        |        |
|--------------------------------------------------------|--------|
| Population, million                                    | 13.7   |
| GDP, current US\$ billion                              | 19.6   |
| GDP per capita, current US\$                           | 1429.4 |
| International poverty rate (\$2.15) <sup>a</sup>       | 12.7   |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 43.4   |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 81.4   |
| Gini index <sup>a</sup>                                | 34.4   |
| School enrollment, primary (% gross) <sup>b</sup>      | 113.0  |
| Life expectancy at birth, years <sup>b</sup>           | 59.8   |
| Total GHG emissions (mtCO2e)                           | 26.4   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2021), 2017 PPPs.

b/ WDI for School enrollment (2022); Life expectancy (2021).

**TABLE 2 Benin / Macro poverty outlook indicators**

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 7.2  | 6.3  | 5.8   | 6.0   | 6.0   | 6.0   |
| Private consumption                                                        | 4.8  | 5.0  | 3.2   | 3.8   | 3.9   | 3.8   |
| Government consumption                                                     | 8.5  | 3.5  | 11.4  | 5.0   | 6.4   | 5.8   |
| Gross fixed capital investment                                             | 17.8 | 12.9 | 5.6   | 8.6   | 7.6   | 8.1   |
| Exports, goods and services                                                | 12.6 | 19.1 | 2.9   | 8.0   | 7.9   | 8.3   |
| Imports, goods and services                                                | 16.8 | 18.5 | 0.1   | 5.1   | 5.0   | 5.5   |
| <b>Real GDP growth, at constant factor prices</b>                          | 6.6  | 6.0  | 5.8   | 6.0   | 6.0   | 6.0   |
| Agriculture                                                                | 5.2  | 4.8  | 4.7   | 5.2   | 5.4   | 5.5   |
| Industry                                                                   | 9.1  | 7.9  | 7.5   | 7.8   | 7.3   | 7.0   |
| Services                                                                   | 6.6  | 6.0  | 5.7   | 5.8   | 5.9   | 5.9   |
| <b>Inflation (consumer price index)</b>                                    | 1.7  | 1.4  | 2.8   | 2.0   | 2.0   | 2.0   |
| <b>Current account balance (% of GDP)</b>                                  | -4.2 | -6.2 | -5.8  | -5.4  | -4.9  | -4.8  |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 1.7  | 1.9  | 1.6   | 1.6   | 1.6   | 1.7   |
| <b>Fiscal balance (% of GDP)</b>                                           | -5.7 | -5.5 | -4.5  | -3.8  | -3.0  | -3.0  |
| <b>Revenues (% of GDP)</b>                                                 | 14.1 | 14.3 | 14.9  | 15.2  | 15.7  | 16.0  |
| <b>Debt (% of GDP)</b>                                                     | 50.3 | 54.2 | 55.0  | 54.1  | 52.9  | 52.1  |
| <b>Primary balance (% of GDP)</b>                                          | -3.5 | -3.9 | -2.8  | -2.1  | -1.4  | -1.5  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 12.7 | 12.3 | 11.7  | 10.8  | 10.0  | 9.2   |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 43.4 | 42.5 | 41.0  | 38.5  | 37.0  | 35.6  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 81.4 | 80.5 | 79.5  | 77.7  | 76.4  | 75.2  |
| <b>GHG emissions growth (mtCO2e)</b>                                       | -0.4 | 0.2  | -1.9  | 0.2   | 1.0   | 1.6   |
| <b>Energy related GHG emissions (% of total)</b>                           | 30.6 | 29.7 | 27.1  | 25.9  | 25.3  | 25.1  |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2021-EHCVM. Actual data: 2021. Nowcast: 2022-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# BURKINA FASO

**Table 1** **2023**

|                                                        |       |
|--------------------------------------------------------|-------|
| Population, million                                    | 23.3  |
| GDP, current US\$ billion                              | 22.9  |
| GDP per capita, current US\$                           | 984.0 |
| International poverty rate (\$2.15) <sup>a</sup>       | 25.3  |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 60.7  |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 88.1  |
| Gini index <sup>a</sup>                                | 37.4  |
| School enrollment, primary (% gross) <sup>b</sup>      | 82.4  |
| Life expectancy at birth, years <sup>b</sup>           | 59.3  |
| Total GHG emissions (mtCO <sub>2</sub> e)              | 67.6  |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2021), 2017 PPPs.

b/ WDI for School enrollment (2022); Life expectancy (2021).

**TABLE 2 Burkina Faso / Macro poverty outlook indicators**

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022  | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|-------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 6.9  | 1.8   | 3.2   | 3.7   | 3.8   | 4.2   |
| Private consumption                                                        | 3.4  | 4.3   | 3.1   | 3.4   | 3.5   | 3.6   |
| Government consumption                                                     | 6.6  | 5.2   | 4.5   | 5.4   | 3.9   | 3.8   |
| Gross fixed capital investment                                             | 34.8 | 6.4   | 0.7   | 4.0   | 4.4   | 5.4   |
| Exports, goods and services                                                | 6.5  | -2.8  | -2.1  | 3.0   | 3.1   | 3.4   |
| Imports, goods and services                                                | 15.5 | 8.2   | -1.9  | 3.8   | 3.2   | 3.3   |
| <b>Real GDP growth, at constant factor prices</b>                          | 6.9  | 1.8   | 3.2   | 3.7   | 3.8   | 4.2   |
| Agriculture                                                                | -4.1 | 5.7   | 2.3   | 4.5   | 4.3   | 4.3   |
| Industry                                                                   | 11.0 | -8.2  | 0.3   | 2.8   | 3.4   | 3.9   |
| Services                                                                   | 10.3 | 6.0   | 5.2   | 3.7   | 3.8   | 4.3   |
| <b>Inflation (consumer price index)</b>                                    | 3.9  | 14.1  | 0.7   | 2.8   | 2.5   | 2.2   |
| <b>Current account balance (% of GDP)</b>                                  | 0.4  | -6.2  | -4.9  | -4.2  | -4.1  | -3.7  |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 0.5  | 0.3   | 0.3   | 0.4   | 0.5   | 0.4   |
| <b>Fiscal balance (% of GDP)</b>                                           | -7.5 | -10.6 | -6.4  | -5.6  | -4.7  | -4.4  |
| <b>Revenues (% of GDP)</b>                                                 | 20.2 | 21.6  | 21.3  | 21.3  | 21.2  | 21.2  |
| <b>Debt (% of GDP)</b>                                                     | 55.4 | 58.1  | 61.4  | 63.3  | 65.4  | 63.2  |
| <b>Primary balance (% of GDP)</b>                                          | -6.0 | -8.5  | -4.3  | -3.0  | -1.9  | -1.5  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 25.3 | 26.5  | 25.9  | 25.4  | 25.0  | 24.4  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 60.7 | 62.4  | 61.4  | 61.1  | 60.5  | 59.7  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 88.1 | 88.7  | 88.3  | 88.1  | 87.8  | 87.3  |
| <b>GHG emissions growth (mtCO<sub>2</sub>e)</b>                            | 6.0  | 4.6   | 5.0   | 5.1   | 5.1   | 4.8   |
| <b>Energy related GHG emissions (% of total)</b>                           | 11.1 | 11.4  | 11.8  | 12.3  | 12.7  | 13.2  |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2021-EHCVM. Actual data: 2021. Nowcast: 2022-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# CAMEROON

**Table 1** **2023**

|                                                        |        |
|--------------------------------------------------------|--------|
| Population, million                                    | 28.8   |
| GDP, current US\$ billion                              | 47.4   |
| GDP per capita, current US\$                           | 1646.1 |
| International poverty rate (\$2.15) <sup>a</sup>       | 23.0   |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 46.7   |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 76.0   |
| Gini index <sup>a</sup>                                | 42.2   |
| School enrollment, primary (% gross) <sup>b</sup>      | 110.7  |
| Life expectancy at birth, years <sup>b</sup>           | 60.3   |
| Total GHG emissions (mtCO2e)                           | 134.6  |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2021), 2017 PPPs.

b/ WDI for School enrollment (2022); Life expectancy (2021).

**TABLE 2 Cameroon** / Macro poverty outlook indicators

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 3.3  | 3.6  | 4.0   | 4.3   | 4.5   | 4.6   |
| Private consumption                                                        | 3.5  | 3.6  | 3.7   | 3.7   | 3.8   | 4.0   |
| Government consumption                                                     | 3.4  | 5.1  | 3.1   | 2.4   | 2.2   | 1.7   |
| Gross fixed capital investment                                             | 7.9  | 3.2  | 5.1   | 8.4   | 9.0   | 9.1   |
| Exports, goods and services                                                | 3.2  | 10.1 | 10.1  | 10.0  | 9.9   | 9.9   |
| Imports, goods and services                                                | 9.0  | 7.3  | 7.8   | 9.7   | 9.9   | 10.0  |
| <b>Real GDP growth, at constant factor prices</b>                          | 3.3  | 3.6  | 4.0   | 4.3   | 4.5   | 4.6   |
| Agriculture                                                                | 4.1  | 4.3  | 4.7   | 5.0   | 5.6   | 5.6   |
| Industry                                                                   | 4.1  | 4.2  | 4.5   | 4.8   | 5.4   | 5.4   |
| Services                                                                   | 2.7  | 3.1  | 3.5   | 3.9   | 3.8   | 3.9   |
| <b>Inflation (consumer price index)</b>                                    | 2.5  | 6.3  | 7.4   | 7.0   | 5.7   | 4.9   |
| <b>Current account balance (% of GDP)</b>                                  | -3.8 | -3.5 | -3.6  | -3.3  | -3.4  | -3.0  |
| <b>Fiscal balance (% of GDP)</b>                                           | -2.9 | -1.1 | -0.8  | -0.7  | -0.8  | -0.7  |
| <b>Revenues (% of GDP)</b>                                                 | 14.2 | 15.9 | 16.0  | 16.1  | 16.1  | 16.3  |
| <b>Debt (% of GDP)</b>                                                     | 47.3 | 45.3 | 41.9  | 40.1  | 38.8  | 35.5  |
| <b>Primary balance (% of GDP)</b>                                          | -1.9 | -0.3 | 0.2   | 0.2   | 0.0   | 0.0   |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 23.0 | 22.9 | 23.9  | 24.8  | 25.2  | 25.0  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 46.7 | 46.3 | 47.7  | 48.3  | 48.4  | 48.4  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 76.0 | 75.6 | 76.5  | 77.0  | 77.0  | 76.7  |
| <b>GHG emissions growth (mtCO2e)</b>                                       | 1.8  | 1.4  | 1.5   | 1.5   | 1.8   | 1.7   |
| <b>Energy related GHG emissions (% of total)</b>                           | 7.3  | 7.4  | 7.6   | 7.8   | 8.1   | 8.4   |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2021-ECAM-V. Actual data: 2021. Nowcast: 2022-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# CENTRAL AFRICAN REP.

**Table 1** **2023**

|                                                        |       |
|--------------------------------------------------------|-------|
| Population, million                                    | 5.7   |
| GDP, current US\$ billion                              | 2.6   |
| GDP per capita, current US\$                           | 460.3 |
| International poverty rate (\$2.15) <sup>a</sup>       | 65.7  |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 85.8  |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 96.2  |
| Gini index <sup>a</sup>                                | 43.0  |
| School enrollment, primary (% gross) <sup>b</sup>      | 110.7 |
| Life expectancy at birth, years <sup>b</sup>           | 53.9  |
| Total GHG emissions (mtCO2e)                           | 55.9  |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2021), 2017 PPPs.

b/ WDI for School enrollment (2017); Life expectancy (2021).

**TABLE 2 Central African Republic / Macro poverty outlook indicators**

(annual percent change unless indicated otherwise)

|                                                                            | 2021  | 2022  | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 1.0   | 0.5   | 0.9   | 1.3   | 1.7   | 1.9   |
| Private consumption                                                        | 1.3   | 0.0   | 1.2   | 3.3   | 2.5   | 2.7   |
| Government consumption                                                     | -3.8  | -8.2  | 3.5   | -4.5  | -4.4  | -1.9  |
| Gross fixed capital investment                                             | -15.9 | -4.5  | -1.5  | 0.2   | 9.8   | 3.2   |
| Exports, goods and services                                                | -5.3  | 2.6   | 9.0   | 5.2   | 9.0   | 5.4   |
| Imports, goods and services                                                | -11.5 | -5.5  | 5.5   | 7.3   | 9.9   | 5.5   |
| <b>Real GDP growth, at constant factor prices</b>                          | 1.5   | 1.0   | 0.9   | 1.3   | 1.7   | 1.9   |
| Agriculture                                                                | 2.7   | 2.2   | 2.3   | 2.5   | 2.9   | 3.1   |
| Industry                                                                   | -1.7  | -3.9  | -0.5  | 1.3   | 1.8   | 2.1   |
| Services                                                                   | 2.2   | 2.4   | 0.5   | 0.3   | 0.6   | 0.9   |
| <b>Inflation (consumer price index)</b>                                    | 4.3   | 5.6   | 3.0   | 4.7   | 4.6   | 3.8   |
| <b>Current account balance (% of GDP)</b>                                  | -11.1 | -12.7 | -9.0  | -7.7  | -6.7  | -5.4  |
| <b>Fiscal balance (% of GDP)</b>                                           | -6.0  | -5.3  | -3.5  | -3.1  | -1.8  | 0.1   |
| <b>Revenues (% of GDP)</b>                                                 | 13.7  | 12.3  | 14.4  | 13.9  | 16.1  | 18.2  |
| <b>Debt (% of GDP)</b>                                                     | 48.6  | 54.2  | 55.7  | 55.6  | 54.5  | 50.7  |
| <b>Primary balance (% of GDP)</b>                                          | -5.7  | -4.9  | -2.9  | -2.2  | -0.9  | 0.9   |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 65.7  | 65.3  | 65.9  | 66.2  | 66.8  | 67.3  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 85.8  | 85.6  | 86.2  | 86.1  | 86.7  | 87.1  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 96.2  | 96.1  | 96.4  | 96.4  | 96.5  | 96.7  |
| <b>GHG emissions growth (mtCO2e)</b>                                       | 0.6   | 0.1   | 0.0   | -0.1  | 0.0   | 0.0   |
| <b>Energy related GHG emissions (% of total)</b>                           | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2021-EHCVM. Actual data: 2021. Nowcast: 2022-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# CHAD

**Table 1** **2023**

|                                                        |       |
|--------------------------------------------------------|-------|
| Population, million                                    | 18.3  |
| GDP, current US\$ billion                              | 13.2  |
| GDP per capita, current US\$                           | 722.4 |
| International poverty rate (\$2.15) <sup>a</sup>       | 30.8  |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 62.8  |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 88.8  |
| Gini index <sup>a</sup>                                | 37.4  |
| School enrollment, primary (% gross) <sup>b</sup>      | 90.4  |
| Life expectancy at birth, years <sup>b</sup>           | 52.5  |
| Total GHG emissions (mtCO <sub>2</sub> e)              | 121.1 |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2022), 2017 PPPs.

b/ WDI for School enrollment (2022); Life expectancy (2021).

**TABLE 2 Chad / Macro poverty outlook indicators**

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | -1.2 | 2.8  | 4.1   | 2.7   | 3.3   | 2.9   |
| Private consumption                                                        | 1.6  | 2.7  | 1.9   | 3.6   | 3.2   | 2.3   |
| Government consumption                                                     | 3.7  | -1.5 | 1.1   | 0.4   | 3.0   | 3.1   |
| Gross fixed capital investment                                             | -4.3 | -6.1 | 62.8  | -17.2 | -2.1  | -0.4  |
| Exports, goods and services                                                | -0.4 | 5.0  | 2.9   | 3.8   | 4.1   | 4.2   |
| Imports, goods and services                                                | 5.1  | 2.0  | 16.0  | -3.1  | 2.0   | 2.1   |
| <b>Real GDP growth, at constant factor prices</b>                          | -1.2 | 2.8  | 4.1   | 2.8   | 3.3   | 2.9   |
| Agriculture                                                                | 6.2  | 2.0  | 5.0   | 3.1   | 3.4   | 3.3   |
| Industry                                                                   | -4.6 | 4.1  | 3.3   | 1.1   | 2.0   | 1.7   |
| Services                                                                   | -4.3 | 2.3  | 4.1   | 3.9   | 4.4   | 3.5   |
| <b>Inflation (consumer price index)</b>                                    | 1.0  | 5.8  | 4.1   | 3.9   | 3.6   | 3.0   |
| <b>Current account balance (% of GDP)</b>                                  | -6.0 | 2.9  | -2.4  | -3.0  | -3.3  | -2.8  |
| <b>Fiscal balance (% of GDP)</b>                                           | -2.2 | 5.0  | 1.3   | -1.4  | -1.2  | -2.1  |
| <b>Revenues (% of GDP)</b>                                                 | 16.3 | 23.5 | 27.1  | 22.3  | 22.6  | 21.8  |
| <b>Debt (% of GDP)</b>                                                     | 52.1 | 47.4 | 44.8  | 42.3  | 41.6  | 41.9  |
| <b>Primary balance (% of GDP)</b>                                          | -0.6 | 6.5  | 3.0   | -0.5  | -0.3  | -1.2  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | ..   | 30.8 | 29.9  | 30.4  | 30.8  | 30.9  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | ..   | 62.8 | 61.6  | 62.4  | 62.9  | 63.1  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | ..   | 88.8 | 87.8  | 88.4  | 88.7  | 88.7  |
| <b>GHG emissions growth (mtCO<sub>2</sub>e)</b>                            | 2.0  | 2.1  | 2.0   | 2.1   | 2.0   | 1.9   |
| <b>Energy related GHG emissions (% of total)</b>                           | 1.2  | 1.2  | 1.2   | 1.2   | 1.2   | 1.2   |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2022-EHCVM. Actual data: 2022. Nowcast: 2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# REPUBLIC OF CONGO

**Table 1** **2023**

|                                                        |        |
|--------------------------------------------------------|--------|
| Population, million                                    | 6.1    |
| GDP, current US\$ billion                              | 15.3   |
| GDP per capita, current US\$                           | 2506.0 |
| International poverty rate (\$2.15) <sup>a</sup>       | 35.4   |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 59.1   |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 83.5   |
| Gini index <sup>a</sup>                                | 48.9   |
| School enrollment, primary (% gross) <sup>b</sup>      | 87.7   |
| Life expectancy at birth, years <sup>b</sup>           | 63.5   |
| Total GHG emissions (mtCO2e)                           | 34.2   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2011), 2017 PPPs.

b/ WDI for School enrollment (2018); Life expectancy (2021).

**TABLE 2 Republic of Congo / Macro poverty outlook indicators**

(annual percent change unless indicated otherwise)

|                                                                            | 2021e | 2022e | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 1.0   | 1.5   | 1.9   | 3.5   | 3.7   | 3.2   |
| Private consumption                                                        | 11.5  | 5.0   | 4.9   | 4.9   | 5.0   | 5.1   |
| Government consumption                                                     | 2.1   | -5.0  | 0.6   | 1.8   | 1.6   | 1.6   |
| Gross fixed capital investment                                             | 14.0  | 10.0  | 8.6   | 8.6   | 5.6   | 5.4   |
| Exports, goods and services                                                | -1.0  | -0.7  | 1.0   | 4.2   | 4.5   | 1.9   |
| Imports, goods and services                                                | 25.0  | 5.9   | 8.9   | 8.5   | 7.0   | 5.0   |
| <b>Real GDP growth, at constant factor prices</b>                          | 1.0   | 1.5   | 1.9   | 3.5   | 3.7   | 3.2   |
| Agriculture                                                                | 1.9   | 3.0   | 2.8   | 3.2   | 3.4   | 3.7   |
| Industry                                                                   | -3.3  | -0.6  | 0.7   | 4.5   | 4.8   | 3.2   |
| Services                                                                   | 2.0   | 3.1   | 2.9   | 3.1   | 3.2   | 3.4   |
| <b>Inflation (consumer price index)</b>                                    | 2.0   | 3.0   | 4.3   | 3.8   | 3.0   | 3.0   |
| <b>Current account balance (% of GDP)</b>                                  | 8.9   | 18.7  | 2.1   | 1.5   | 0.4   | -0.7  |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 0.3   | 0.5   | 4.1   | 4.5   | 4.7   | 4.8   |
| <b>Fiscal balance (% of GDP)</b>                                           | 1.2   | 7.9   | 3.6   | 3.9   | 3.2   | 3.1   |
| <b>Revenues (% of GDP)</b>                                                 | 21.1  | 28.6  | 24.3  | 25.5  | 25.2  | 24.8  |
| <b>Debt (% of GDP)</b>                                                     | 92.1  | 86.6  | 96.0  | 91.3  | 85.9  | 81.0  |
| <b>Primary balance (% of GDP)</b>                                          | 3.1   | 10.2  | 6.4   | 6.6   | 5.8   | 5.7   |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 46.4  | 46.6  | 46.8  | 46.4  | 45.6  | 45.4  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 70.6  | 70.9  | 71.0  | 70.7  | 70.2  | 70.1  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 90.6  | 90.7  | 90.8  | 90.6  | 90.4  | 90.3  |
| <b>GHG emissions growth (mtCO2e)</b>                                       | 3.2   | 3.2   | 3.3   | 3.4   | 3.4   | 3.3   |
| <b>Energy related GHG emissions (% of total)</b>                           | 14.0  | 14.7  | 14.8  | 15.1  | 15.4  | 15.2  |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2011-ECOM. Actual data: 2011. Nowcast: 2012-2023. Forecasts are from 2024 to 2026.

b/ Projection using neutral distribution (2011) with pass-through = 0.87 (Med (0.87)) based on GDP per capita in constant LCU.

# CÔTE D'IVOIRE

**Table 1** **2023**

|                                                        |        |
|--------------------------------------------------------|--------|
| Population, million                                    | 28.9   |
| GDP, current US\$ billion                              | 81.3   |
| GDP per capita, current US\$                           | 2815.2 |
| International poverty rate (\$2.15) <sup>a</sup>       | 9.7    |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 38.4   |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 76.4   |
| Gini index <sup>a</sup>                                | 35.3   |
| School enrollment, primary (% gross) <sup>b</sup>      | 94.6   |
| Life expectancy at birth, years <sup>b</sup>           | 58.6   |
| Total GHG emissions (mtCO2e)                           | 55.0   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2021), 2017 PPPs.

b/ WDI for School enrollment (2022); Life expectancy (2021).

**TABLE 2 Côte d'Ivoire / Macro poverty outlook indicators**

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 7.1  | 6.9  | 6.4   | 6.6   | 6.5   | 6.5   |
| Private consumption                                                        | 5.3  | 5.1  | 2.6   | 3.8   | 4.3   | 4.3   |
| Government consumption                                                     | 6.2  | 10.6 | 9.0   | 7.4   | 7.1   | 7.1   |
| Gross fixed capital investment                                             | 14.9 | 14.6 | 14.9  | 14.6  | 10.5  | 9.9   |
| Exports, goods and services                                                | 16.9 | 4.9  | 8.9   | 6.0   | 6.5   | 7.0   |
| Imports, goods and services                                                | 15.9 | 1.3  | 10.5  | 9.5   | 7.0   | 6.7   |
| <b>Real GDP growth, at constant factor prices</b>                          | 6.1  | 7.3  | 6.2   | 6.6   | 6.5   | 6.5   |
| Agriculture                                                                | 7.3  | 4.7  | 4.0   | 4.3   | 4.4   | 4.8   |
| Industry                                                                   | 4.9  | 8.1  | 5.8   | 6.2   | 6.5   | 6.6   |
| Services                                                                   | 6.2  | 7.9  | 7.2   | 7.5   | 7.2   | 7.0   |
| <b>Inflation (consumer price index)</b>                                    | 4.2  | 5.2  | 4.4   | 3.6   | 3.0   | 2.0   |
| <b>Current account balance (% of GDP)</b>                                  | -4.5 | -7.5 | -5.8  | -4.0  | -3.4  | -3.3  |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 1.5  | 1.3  | 1.6   | 2.2   | 1.9   | 1.7   |
| <b>Fiscal balance (% of GDP)</b>                                           | -4.8 | -6.6 | -5.2  | -4.0  | -3.0  | -3.0  |
| <b>Revenues (% of GDP)</b>                                                 | 15.7 | 14.9 | 16.2  | 16.8  | 17.2  | 17.5  |
| <b>Debt (% of GDP)</b>                                                     | 51.4 | 56.5 | 58.0  | 58.2  | 58.0  | 56.9  |
| <b>Primary balance (% of GDP)</b>                                          | -2.9 | -4.4 | -2.8  | -1.7  | -0.6  | -0.7  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 9.7  | 9.8  | 10.1  | 10.2  | 10.0  | 9.6   |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 38.4 | 38.3 | 38.1  | 37.6  | 36.7  | 35.4  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 76.4 | 76.1 | 76.0  | 75.1  | 74.1  | 72.8  |
| <b>GHG emissions growth (mtCO2e)</b>                                       | 2.7  | 1.5  | 0.6   | 0.6   | 0.8   | 1.7   |
| <b>Energy related GHG emissions (% of total)</b>                           | 25.0 | 25.3 | 25.0  | 24.5  | 24.2  | 24.4  |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2021-EHCVM. Actual data: 2021. Nowcast: 2022-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# EQUATORIAL GUINEA

**Table 1** **2023**

|                                                   |        |
|---------------------------------------------------|--------|
| Population, million                               | 1.7    |
| GDP, current US\$ billion                         | 12.1   |
| GDP per capita, current US\$                      | 7051.5 |
| School enrollment, primary (% gross) <sup>a</sup> | 51.2   |
| Life expectancy at birth, years <sup>a</sup>      | 60.6   |
| Total GHG emissions (mtCO <sub>2</sub> e)         | 16.6   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ WDI for School enrollment (2019); Life expectancy (2021).

**TABLE 2 Equatorial Guinea / Macro poverty outlook indicators**

(annual percent change unless indicated otherwise)

|                                                        | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|--------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>      | 0.3  | 3.8  | -5.8  | -4.3  | -3.3  | -3.6  |
| Private consumption                                    | -0.8 | 9.6  | -5.7  | -4.8  | 2.8   | 2.0   |
| Government consumption                                 | 5.2  | -5.3 | 7.3   | 20.9  | 0.3   | -6.2  |
| Gross fixed capital investment                         | 37.4 | -2.0 | -38.0 | -25.2 | -11.4 | -9.0  |
| Exports, goods and services                            | 0.3  | 12.7 | -3.7  | -5.9  | -8.2  | -5.5  |
| Imports, goods and services                            | 8.5  | 19.0 | -1.4  | 3.8   | -3.3  | -2.8  |
| <b>Real GDP growth, at constant factor prices</b>      | 0.4  | 3.5  | -5.8  | -4.3  | -3.3  | -3.6  |
| Agriculture                                            | 8.0  | 7.5  | -9.1  | -6.5  | 1.5   | 1.6   |
| Industry                                               | -5.9 | 3.1  | -39.1 | -23.1 | -19.6 | -14.8 |
| Services                                               | 10.8 | 3.8  | 43.1  | 7.5   | 3.9   | 0.1   |
| <b>Inflation (consumer price index)</b>                | -0.1 | 4.9  | 2.4   | 4.0   | 2.5   | 2.2   |
| <b>Current account balance (% of GDP)</b>              | -2.1 | -1.0 | -1.6  | -3.6  | -4.2  | -4.1  |
| <b>Net foreign direct investment inflow (% of GDP)</b> | 5.2  | 5.6  | 4.5   | 3.4   | 2.5   | 1.9   |
| <b>Fiscal balance (% of GDP)</b>                       | 2.6  | 13.0 | 7.3   | 1.2   | -2.4  | -3.7  |
| <b>Revenues (% of GDP)</b>                             | 15.6 | 30.1 | 27.6  | 20.5  | 16.3  | 14.1  |
| <b>Debt (% of GDP)</b>                                 | 43.4 | 39.3 | 36.6  | 32.6  | 32.3  | 34.8  |
| <b>Primary balance (% of GDP)</b>                      | 3.7  | 14.2 | 8.7   | 2.4   | -1.3  | -2.6  |
| <b>GHG emissions growth (mtCO<sub>2</sub>e)</b>        | 22.0 | 12.3 | -9.6  | -5.6  | -3.7  | -2.3  |
| <b>Energy related GHG emissions (% of total)</b>       | 39.0 | 44.2 | 41.7  | 40.4  | 39.8  | 39.7  |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

# GABON

**Table 1** **2023**

|                                                        |        |
|--------------------------------------------------------|--------|
| Population, million                                    | 2.4    |
| GDP, current US\$ billion                              | 20.5   |
| GDP per capita, current US\$                           | 8414.1 |
| International poverty rate (\$2.15) <sup>a</sup>       | 2.5    |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 8.1    |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 31.2   |
| Gini index <sup>a</sup>                                | 38.0   |
| School enrollment, primary (% gross) <sup>b</sup>      | 100.6  |
| Life expectancy at birth, years <sup>b</sup>           | 65.8   |
| Total GHG emissions (mtCO2e)                           | 22.5   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2017), 2017 PPPs.

b/ Most recent WDI value (2021).

**TABLE 2 Gabon** / Macro poverty outlook indicators

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 1.5  | 3.0  | 2.3   | 3.0   | 2.3   | 2.8   |
| Private consumption                                                        | -1.4 | -0.3 | 3.2   | 5.6   | 2.3   | 4.7   |
| Government consumption                                                     | 3.2  | 3.8  | -1.5  | -4.9  | 1.8   | -4.8  |
| Gross fixed capital investment                                             | 9.2  | 8.3  | -0.5  | 2.4   | 3.8   | 2.4   |
| Exports, goods and services                                                | -2.0 | 6.9  | 1.4   | 5.5   | 5.3   | 4.2   |
| Imports, goods and services                                                | 3.5  | 8.3  | -0.9  | 4.1   | 5.7   | 3.2   |
| <b>Real GDP growth, at constant factor prices</b>                          | 2.9  | 3.3  | 2.3   | 3.0   | 2.3   | 2.8   |
| Agriculture                                                                | 11.2 | 9.4  | 2.1   | 3.6   | 5.5   | 6.6   |
| Industry                                                                   | 3.2  | 3.2  | 3.5   | 2.2   | 0.0   | 4.2   |
| Services                                                                   | 1.4  | 2.4  | 1.5   | 3.3   | 3.1   | 1.1   |
| <b>Inflation (consumer price index)</b>                                    | 1.1  | 4.3  | 3.7   | 2.4   | 2.3   | 2.2   |
| <b>Current account balance (% of GDP)</b>                                  | 30.1 | 35.2 | 28.7  | 29.2  | 28.8  | 28.4  |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 2.1  | 4.6  | 5.5   | 5.4   | 5.0   | 5.4   |
| <b>Fiscal balance (% of GDP)</b>                                           | -1.8 | -0.8 | -1.0  | -3.8  | -5.9  | -5.0  |
| <b>Revenues (% of GDP)</b>                                                 | 14.7 | 20.4 | 22.9  | 20.0  | 18.8  | 18.1  |
| <b>Debt (% of GDP)</b>                                                     | 65.8 | 55.3 | 70.5  | 73.7  | 79.1  | 81.8  |
| <b>Primary balance (% of GDP)</b>                                          | 0.9  | 1.7  | 1.9   | -0.7  | -2.8  | -1.7  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 2.3  | 2.4  | 2.9   | 3.1   | 3.2   | 3.2   |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 8.2  | 8.5  | 10.0  | 10.1  | 10.7  | 10.9  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 32.1 | 32.3 | 35.2  | 35.1  | 36.1  | 36.9  |
| <b>GHG emissions growth (mtCO2e)</b>                                       | 4.5  | 2.5  | -0.7  | -0.2  | 0.1   | 0.8   |
| <b>Energy related GHG emissions (% of total)</b>                           | 15.9 | 16.0 | 14.9  | 13.8  | 12.8  | 12.1  |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2017-EGEP. Actual data: 2017. Nowcast: 2018-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# GUINEA-BISSAU

**Table 1** **2023**

|                                                        |       |
|--------------------------------------------------------|-------|
| Population, million                                    | 2.2   |
| GDP, current US\$ billion                              | 2.0   |
| GDP per capita, current US\$                           | 918.1 |
| International poverty rate (\$2.15) <sup>a</sup>       | 26.0  |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 60.2  |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 89.1  |
| Gini index <sup>a</sup>                                | 33.4  |
| School enrollment, primary (% gross) <sup>b</sup>      | 113.3 |
| Life expectancy at birth, years <sup>b</sup>           | 59.7  |
| Total GHG emissions (mtCO <sub>2</sub> e)              | 4.4   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2021), 2017 PPPs.

b/ WDI for School enrollment (2010); Life expectancy (2021).

**TABLE 2** Guinea-Bissau / Macro poverty outlook indicators

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 6.4  | 4.2  | 4.2   | 4.7   | 4.8   | 4.9   |
| Private consumption                                                        | 16.0 | 3.0  | -1.2  | 5.1   | 4.4   | 4.2   |
| Government consumption                                                     | 16.0 | 7.0  | 5.5   | -8.5  | -5.6  | 3.9   |
| Gross fixed capital investment                                             | -5.0 | 15.7 | 23.0  | 5.6   | 7.6   | 2.6   |
| Exports, goods and services                                                | 15.0 | -6.5 | -3.1  | 12.2  | 9.6   | 7.6   |
| Imports, goods and services                                                | 4.0  | 2.5  | 0.8   | 3.0   | 4.0   | 3.0   |
| <b>Real GDP growth, at constant factor prices</b>                          | 6.3  | 4.7  | 4.2   | 4.7   | 4.8   | 4.9   |
| Agriculture                                                                | 5.4  | 6.1  | 7.5   | 5.1   | 5.1   | 5.1   |
| Industry                                                                   | 5.6  | 4.8  | 4.0   | 4.4   | 4.5   | 4.6   |
| Services                                                                   | 7.3  | 3.7  | 1.8   | 4.4   | 4.7   | 4.8   |
| <b>Inflation (consumer price index)</b>                                    | 3.3  | 7.9  | 8.0   | 4.5   | 2.0   | 2.0   |
| <b>Current account balance (% of GDP)</b>                                  | -0.8 | -9.6 | -9.4  | -5.7  | -4.7  | -4.4  |
| <b>Fiscal balance (% of GDP)</b>                                           | -5.9 | -6.1 | -7.6  | -4.8  | -4.0  | -4.0  |
| <b>Revenues (% of GDP)</b>                                                 | 19.1 | 15.2 | 13.9  | 16.0  | 15.3  | 15.2  |
| <b>Debt (% of GDP)</b>                                                     | 78.8 | 80.4 | 77.8  | 75.6  | 72.8  | 70.4  |
| <b>Primary balance (% of GDP)</b>                                          | -4.3 | -4.7 | -5.0  | -2.2  | -1.6  | -1.6  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 26.0 | 26.0 | 25.9  | 25.4  | 24.1  | 22.6  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 60.2 | 59.9 | 60.4  | 60.2  | 58.8  | 57.7  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 89.1 | 89.2 | 89.5  | 89.6  | 89.0  | 88.3  |
| <b>GHG emissions growth (mtCO<sub>2</sub>e)</b>                            | 1.4  | 1.4  | 1.4   | 1.5   | 1.5   | 1.6   |
| <b>Energy related GHG emissions (% of total)</b>                           | 8.0  | 8.2  | 8.3   | 8.6   | 8.8   | 9.0   |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2021-EHCVM. Actual data: 2021. Nowcast: 2022-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# MALI

**Table 1** **2023**

|                                                        |       |
|--------------------------------------------------------|-------|
| Population, million                                    | 23.3  |
| GDP, current US\$ billion                              | 21.8  |
| GDP per capita, current US\$                           | 936.3 |
| International poverty rate (\$2.15) <sup>a</sup>       | 20.8  |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 56.1  |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 85.9  |
| Gini index <sup>a</sup>                                | 35.7  |
| School enrollment, primary (% gross) <sup>b</sup>      | 72.6  |
| Life expectancy at birth, years <sup>b</sup>           | 58.9  |
| Total GHG emissions (mtCO <sub>2</sub> e)              | 48.0  |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2021), 2017 PPPs.

b/ Most recent WDI value (2021).

**TABLE 2 Mali /** Macro poverty outlook indicators

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 3.1  | 3.5  | 3.5   | 3.1   | 3.5   | 4.5   |
| Private consumption                                                        | 3.0  | 4.0  | 3.9   | 3.8   | 3.9   | 4.1   |
| Government consumption                                                     | 5.8  | 7.6  | 16.7  | -0.2  | 0.8   | -1.0  |
| Gross fixed capital investment                                             | 4.8  | 1.0  | -3.6  | 4.7   | 4.5   | 9.2   |
| Exports, goods and services                                                | -1.0 | 18.1 | -3.9  | 2.8   | 4.3   | 5.1   |
| Imports, goods and services                                                | 14.1 | 0.7  | 2.3   | 3.9   | 4.3   | 4.3   |
| <b>Real GDP growth, at constant factor prices</b>                          | 3.0  | 4.3  | 3.4   | 3.1   | 3.5   | 4.5   |
| Agriculture                                                                | 1.4  | 2.4  | 2.3   | 3.6   | 4.5   | 4.5   |
| Industry                                                                   | 1.0  | 3.7  | 2.0   | 3.0   | 3.5   | 3.5   |
| Services                                                                   | 5.1  | 5.8  | 4.9   | 2.8   | 2.8   | 4.9   |
| <b>Inflation (consumer price index)</b>                                    | 4.0  | 9.7  | 2.1   | 2.5   | 2.3   | 2.0   |
| <b>Current account balance (% of GDP)</b>                                  | -7.7 | -7.0 | -6.8  | -6.0  | -5.8  | -4.8  |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 3.0  | 2.6  | 2.4   | 3.0   | 2.9   | 2.7   |
| <b>Fiscal balance (% of GDP)</b>                                           | -4.9 | -4.8 | -4.8  | -4.1  | -3.2  | -2.9  |
| <b>Revenues (% of GDP)</b>                                                 | 22.0 | 19.8 | 20.8  | 20.8  | 21.9  | 20.5  |
| <b>Debt (% of GDP)</b>                                                     | 50.4 | 51.8 | 52.1  | 52.6  | 52.8  | 53.4  |
| <b>Primary balance (% of GDP)</b>                                          | -3.5 | -3.4 | -3.1  | -2.2  | -1.4  | -1.2  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 20.8 | 21.0 | 20.2  | 20.1  | 19.9  | 19.3  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 56.1 | 56.4 | 54.7  | 54.6  | 54.2  | 53.5  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 85.9 | 86.1 | 84.3  | 84.1  | 84.1  | 83.8  |
| <b>GHG emissions growth (mtCO<sub>2</sub>e)</b>                            | 4.0  | 3.3  | 2.7   | 3.6   | 4.0   | 4.2   |
| <b>Energy related GHG emissions (% of total)</b>                           | 8.5  | 9.0  | 8.6   | 8.4   | 8.3   | 8.4   |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2021-EHCVM. Actual data: 2021. Nowcast: 2022-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# NIGER

**Table 1** **2023**

|                                                        |       |
|--------------------------------------------------------|-------|
| Population, million                                    | 27.2  |
| GDP, current US\$ billion                              | 16.6  |
| GDP per capita, current US\$                           | 611.3 |
| International poverty rate (\$2.15) <sup>a</sup>       | 50.6  |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 83.1  |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 96.3  |
| Gini index <sup>a</sup>                                | 32.9  |
| School enrollment, primary (% gross) <sup>b</sup>      | 64.8  |
| Life expectancy at birth, years <sup>b</sup>           | 61.6  |
| Total GHG emissions (mtCO <sub>2</sub> e)              | 52.5  |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2021), 2017 PPPs.

b/ Most recent WDI value (2021).

**TABLE 2 Niger** / Macro poverty outlook indicators

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 1.4  | 11.5 | 1.2   | 6.9   | 4.8   | 4.3   |
| Private consumption                                                        | -0.2 | 7.0  | 3.5   | 3.8   | 4.4   | 4.1   |
| Government consumption                                                     | 9.8  | -1.2 | -11.1 | 2.2   | 4.1   | 3.3   |
| Gross fixed capital investment                                             | 7.7  | 21.1 | -10.9 | 3.1   | 4.0   | 3.7   |
| Exports, goods and services                                                | 6.7  | 14.4 | -8.1  | 82.5  | 9.8   | 8.7   |
| Imports, goods and services                                                | 6.9  | 6.5  | -12.0 | 22.5  | 5.5   | 5.5   |
| <b>Real GDP growth, at constant factor prices</b>                          | 1.0  | 11.6 | 1.2   | 6.9   | 4.7   | 4.3   |
| Agriculture                                                                | -5.1 | 27.0 | -1.2  | 6.5   | 5.5   | 5.5   |
| Industry                                                                   | 4.1  | -0.9 | 3.9   | 14.9  | 5.6   | 3.4   |
| Services                                                                   | 5.4  | 4.9  | 2.5   | 2.8   | 3.3   | 3.4   |
| <b>Inflation (consumer price index)</b>                                    | 2.9  | 3.9  | 3.7   | 3.5   | 3.7   | 3.5   |
| <b>Current account balance (% of GDP)</b>                                  | -7.8 | -9.8 | -9.4  | -8.4  | -6.3  | -4.5  |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 2.1  | 3.9  | 3.2   | 1.7   | 2.0   | -2.1  |
| <b>Fiscal balance (% of GDP)</b>                                           | -3.4 | -6.8 | -3.9  | -2.4  | -2.6  | -2.7  |
| <b>Revenues (% of GDP)</b>                                                 | 18.2 | 14.9 | 10.0  | 11.0  | 11.8  | 12.0  |
| <b>Debt (% of GDP)</b>                                                     | 51.3 | 51.7 | 54.5  | 52.6  | 50.9  | 49.3  |
| <b>Primary balance (% of GDP)</b>                                          | -2.2 | -5.6 | -2.9  | -1.8  | -2.1  | -2.3  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 50.6 | 49.9 | 52.0  | 50.9  | 51.1  | 51.2  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 83.1 | 82.6 | 83.1  | 82.7  | 82.8  | 82.9  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 96.3 | 96.0 | 96.0  | 95.7  | 95.7  | 95.8  |
| <b>GHG emissions growth (mtCO<sub>2</sub>e)</b>                            | 4.7  | 4.8  | 3.9   | 4.7   | 4.8   | 4.6   |
| <b>Energy related GHG emissions (% of total)</b>                           | 7.1  | 7.5  | 7.3   | 7.7   | 8.0   | 8.0   |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2021-EHCVM. Actual data: 2021. Nowcast: 2022-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# SENEGAL

**Table 1** **2023**

|                                                        |        |
|--------------------------------------------------------|--------|
| Population, million                                    | 17.8   |
| GDP, current US\$ billion                              | 31.1   |
| GDP per capita, current US\$                           | 1753.3 |
| International poverty rate (\$2.15) <sup>a</sup>       | 9.9    |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 36.3   |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 75.6   |
| Gini index <sup>a</sup>                                | 36.2   |
| School enrollment, primary (% gross) <sup>b</sup>      | 83.3   |
| Life expectancy at birth, years <sup>b</sup>           | 67.1   |
| Total GHG emissions (mtCO2e)                           | 36.4   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2021), 2017 PPPs.

b/ WDI for School enrollment (2022); Life expectancy (2021).

**TABLE 2 Senegal** / Macro poverty outlook indicators

(annual percent change unless indicated otherwise)

|                                                                            | 2021  | 2022  | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 6.5   | 3.8   | 3.7   | 7.1   | 9.7   | 5.7   |
| Private consumption                                                        | 3.4   | 3.5   | 2.3   | 3.1   | 3.6   | 3.7   |
| Government consumption                                                     | 14.4  | 1.5   | -7.1  | 14.7  | 7.7   | 4.5   |
| Gross fixed capital investment                                             | 15.8  | 11.0  | 12.5  | 6.0   | 8.8   | 8.6   |
| Exports, goods and services                                                | 22.5  | 3.5   | 6.7   | 14.3  | 20.1  | 3.4   |
| Imports, goods and services                                                | 16.0  | 12.4  | 6.0   | 5.4   | 4.9   | 3.1   |
| <b>Real GDP growth, at constant factor prices</b>                          | 6.3   | 3.6   | 3.7   | 7.1   | 9.7   | 5.7   |
| Agriculture                                                                | 0.8   | 0.3   | 6.2   | 6.3   | 6.4   | 6.5   |
| Industry                                                                   | 7.1   | 2.6   | 2.9   | 16.8  | 23.4  | 3.9   |
| Services                                                                   | 7.7   | 5.1   | 3.3   | 3.2   | 4.0   | 6.5   |
| <b>Inflation (consumer price index)</b>                                    | 2.2   | 9.7   | 6.1   | 3.0   | 2.0   | 2.0   |
| <b>Current account balance (% of GDP)</b>                                  | -12.1 | -20.0 | -14.5 | -9.5  | -4.8  | -4.6  |
| <b>Fiscal balance (% of GDP)</b>                                           | -6.3  | -6.6  | -6.6  | -4.8  | -3.0  | -3.0  |
| <b>Revenues (% of GDP)</b>                                                 | 19.5  | 20.0  | 19.2  | 20.8  | 21.8  | 22.3  |
| <b>Debt (% of GDP)</b>                                                     | 73.4  | 76.1  | 79.5  | 72.4  | 67.5  | 67.2  |
| <b>Primary balance (% of GDP)</b>                                          | -4.3  | -4.4  | -3.9  | -2.2  | -0.8  | -1.1  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 9.9   | 10.0  | 9.8   | 8.7   | 7.2   | 6.4   |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 36.3  | 36.5  | 36.4  | 33.9  | 30.9  | 29.5  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 75.6  | 75.9  | 76.3  | 74.1  | 71.1  | 69.5  |
| <b>GHG emissions growth (mtCO2e)</b>                                       | 3.1   | 1.1   | 0.5   | 3.8   | 5.5   | 5.1   |
| <b>Energy related GHG emissions (% of total)</b>                           | 24.2  | 24.5  | 24.0  | 24.2  | 24.5  | 23.8  |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2021-EHCVM. Actual data: 2021. Nowcast: 2022-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# TOGO

**Table 1** **2023**

|                                                        |        |
|--------------------------------------------------------|--------|
| Population, million                                    | 9.1    |
| GDP, current US\$ billion                              | 9.1    |
| GDP per capita, current US\$                           | 1008.3 |
| International poverty rate (\$2.15) <sup>a</sup>       | 26.6   |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 58.8   |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 86.8   |
| Gini index <sup>a</sup>                                | 37.9   |
| School enrollment, primary (% gross) <sup>b</sup>      | 122.5  |
| Life expectancy at birth, years <sup>b</sup>           | 61.6   |
| Total GHG emissions (mtCO <sub>2</sub> e)              | 10.2   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2021), 2017 PPPs.

b/ WDI for School enrollment (2022); Life expectancy (2021).

**TABLE 2** **Togo** / Macro poverty outlook indicators

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 6.0  | 5.8  | 5.4   | 5.1   | 5.4   | 5.6   |
| Private consumption                                                        | 9.9  | 1.3  | 4.8   | 6.0   | 5.9   | 5.8   |
| Government consumption                                                     | 0.2  | 8.8  | 5.6   | 3.1   | 6.1   | 5.9   |
| Gross fixed capital investment                                             | -0.2 | 26.4 | 7.2   | 4.4   | 3.7   | 4.8   |
| Exports, goods and services                                                | 5.3  | -1.1 | 4.2   | 4.9   | 6.4   | 6.8   |
| Imports, goods and services                                                | 6.9  | 5.1  | 3.8   | 4.3   | 5.0   | 5.4   |
| <b>Real GDP growth, at constant factor prices</b>                          | 5.3  | 6.2  | 5.3   | 5.0   | 5.4   | 5.6   |
| Agriculture                                                                | 3.4  | 5.0  | 5.1   | 4.1   | 4.5   | 4.2   |
| Industry                                                                   | 5.7  | 7.3  | 7.1   | 6.4   | 6.8   | 6.9   |
| Services                                                                   | 5.9  | 6.2  | 4.6   | 4.8   | 5.1   | 5.5   |
| <b>Inflation (consumer price index)</b>                                    | 4.5  | 7.5  | 5.3   | 3.5   | 3.0   | 2.7   |
| <b>Current account balance (% of GDP)</b>                                  | -0.9 | -3.0 | -3.3  | -3.4  | -3.0  | -3.0  |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 0.3  | 0.3  | 0.4   | 0.4   | 0.5   | 0.4   |
| <b>Fiscal balance (% of GDP)</b>                                           | -4.7 | -8.3 | -6.6  | -6.2  | -3.0  | -3.0  |
| <b>Revenues (% of GDP)</b>                                                 | 17.1 | 17.6 | 17.8  | 18.1  | 17.9  | 18.0  |
| <b>Debt (% of GDP)</b>                                                     | 63.0 | 65.8 | 67.1  | 68.8  | 67.0  | 65.0  |
| <b>Primary balance (% of GDP)</b>                                          | -2.5 | -5.9 | -4.5  | -3.8  | -0.5  | -0.7  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 26.6 | 26.7 | 25.8  | 24.5  | 22.7  | 21.5  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 58.8 | 58.7 | 57.2  | 55.6  | 53.5  | 50.9  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 86.8 | 86.8 | 85.8  | 84.9  | 83.7  | 82.7  |
| <b>GHG emissions growth (mtCO<sub>2</sub>e)</b>                            | 6.4  | 5.4  | 2.9   | 4.0   | 4.4   | 1.2   |
| <b>Energy related GHG emissions (% of total)</b>                           | 25.7 | 26.9 | 26.4  | 26.4  | 26.4  | 20.2  |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2018-EHCVM. Actual data: 2018. Nowcast: 2019-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# ANGOLA

| <b>Table 1</b>                                         | <b>2023</b> |
|--------------------------------------------------------|-------------|
| Population, million                                    | 36.1        |
| GDP, current US\$ billion                              | 92.2        |
| GDP per capita, current US\$                           | 2549.9      |
| International poverty rate (\$2.15) <sup>a</sup>       | 31.1        |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 52.9        |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 78.0        |
| Gini index <sup>a</sup>                                | 51.3        |
| School enrollment, primary (% gross) <sup>b</sup>      | 88.6        |
| Life expectancy at birth, years <sup>b</sup>           | 61.6        |
| Total GHG emissions (mtCO2e)                           | 110.5       |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2018), 2017 PPPs.

b/ Most recent WDI value (2021).

**TABLE 2** Angola / Macro poverty outlook indicators

(annual percent change unless indicated otherwise)

|                                                                            | 2021 | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 1.2  | 3.0  | 0.8   | 2.8   | 2.7   | 2.4   |
| Private consumption                                                        | 4.0  | 5.4  | 2.3   | 4.6   | 4.0   | 3.0   |
| Government consumption                                                     | -2.9 | 3.6  | -15.3 | 5.1   | 2.7   | 2.4   |
| Gross fixed capital investment                                             | 7.4  | 8.1  | 4.6   | 1.4   | 2.7   | 2.8   |
| Exports, goods and services                                                | -8.6 | 3.3  | -2.8  | -2.5  | 0.0   | 0.0   |
| Imports, goods and services                                                | -3.8 | 26.1 | -7.3  | -3.3  | 2.2   | 1.3   |
| <b>Real GDP growth, at constant factor prices</b>                          | -0.1 | 3.1  | 0.8   | 2.6   | 2.6   | 2.3   |
| Agriculture                                                                | 17.2 | 3.9  | 0.6   | 6.3   | 4.8   | 4.8   |
| Industry                                                                   | -8.3 | 1.8  | -1.3  | 0.1   | 1.0   | 1.2   |
| Services                                                                   | 6.2  | 4.2  | 2.8   | 4.2   | 3.6   | 2.7   |
| <b>Inflation (consumer price index)</b>                                    | 25.8 | 21.4 | 13.6  | 24.7  | 15.4  | 11.4  |
| <b>Current account balance (% of GDP)</b>                                  | 11.8 | 10.4 | 4.2   | 3.4   | 1.1   | -0.2  |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 4.6  | 5.9  | 2.3   | 2.1   | 1.3   | 1.0   |
| <b>Fiscal balance (% of GDP)</b>                                           | 4.0  | 1.0  | -1.7  | -2.8  | -2.4  | -3.2  |
| <b>Revenues (% of GDP)</b>                                                 | 24.7 | 25.6 | 20.0  | 18.7  | 17.5  | 16.8  |
| <b>Debt (% of GDP)</b>                                                     | 87.9 | 69.5 | 87.2  | 74.5  | 69.2  | 67.0  |
| <b>Primary balance (% of GDP)</b>                                          | 9.5  | 5.4  | 3.5   | 3.0   | 2.9   | 2.4   |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 35.2 | 35.2 | 36.0  | 36.1  | 35.2  | 34.3  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 57.6 | 57.7 | 58.3  | 58.4  | 57.6  | 56.9  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 81.2 | 81.3 | 81.7  | 81.8  | 81.2  | 80.7  |
| <b>GHG emissions growth (mtCO2e)</b>                                       | -1.9 | -0.8 | -0.4  | -0.2  | 0.0   | 0.0   |
| <b>Energy related GHG emissions (% of total)</b>                           | 12.6 | 12.2 | 12.0  | 11.8  | 11.8  | 11.8  |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2018-IDREA. Projection using neutral distribution (2018) with pass-through = 0.7 (Low (0.7)) based on GDP per capita in constant LCU.

b/ Actual data: 2018. Nowcast: 2019-2023. Forecasts are from 2024 to 2026.

# BURUNDI

**Table 1** **2023**

|                                                        |       |
|--------------------------------------------------------|-------|
| Population, million                                    | 13.2  |
| GDP, current US\$ billion                              | 3.5   |
| GDP per capita, current US\$                           | 267.3 |
| International poverty rate (\$2.15) <sup>a</sup>       | 62.1  |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 86.2  |
| Gini index <sup>a</sup>                                | 37.5  |
| School enrollment, primary (% gross) <sup>b</sup>      | 103.9 |
| Life expectancy at birth, years <sup>b</sup>           | 61.7  |
| Total GHG emissions (mtCO2e)                           | 9.3   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2020), 2017 PPPs.

b/ WDI for School enrollment (2022); Life expectancy (2021).

**TABLE 2 Burundi /** Macro poverty outlook indicators

(annual percent change unless indicated otherwise)

|                                                                            | 2021  | 2022  | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 3.1   | 1.8   | 2.7   | 3.8   | 4.4   | 4.8   |
| Private consumption                                                        | 3.0   | 2.4   | 2.7   | 3.0   | 3.2   | 3.4   |
| Government consumption                                                     | 2.9   | 5.9   | 5.4   | 5.1   | 5.2   | 5.0   |
| Gross fixed capital investment                                             | 3.9   | 4.0   | 8.1   | 10.5  | 12.3  | 13.2  |
| Exports, goods and services                                                | 3.4   | 5.8   | 7.8   | 13.8  | 14.2  | 15.2  |
| Imports, goods and services                                                | 3.2   | 7.0   | 7.0   | 7.1   | 7.3   | 7.5   |
| <b>Real GDP growth, at constant factor prices</b>                          | 3.1   | 1.8   | 2.7   | 3.8   | 4.3   | 4.8   |
| Agriculture                                                                | 3.4   | -0.8  | 2.8   | 3.8   | 4.0   | 4.2   |
| Industry                                                                   | 3.0   | 3.2   | 2.7   | 3.8   | 4.9   | 5.3   |
| Services                                                                   | 2.9   | 3.1   | 2.6   | 3.8   | 4.3   | 4.9   |
| <b>Inflation (consumer price index)</b>                                    | 8.3   | 18.8  | 27.1  | 22.8  | 20.4  | 16.2  |
| <b>Current account balance (% of GDP)</b>                                  | -11.9 | -15.9 | -13.9 | -15.3 | -15.2 | -12.9 |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 0.3   | 0.3   | 0.0   | -0.1  | -0.1  | -0.1  |
| <b>Fiscal balance (% of GDP)</b>                                           | -4.6  | -10.7 | -7.7  | -4.7  | -4.2  | -3.4  |
| <b>Revenues (% of GDP)</b>                                                 | 23.8  | 22.8  | 22.3  | 23.0  | 23.4  | 23.6  |
| <b>Debt (% of GDP)</b>                                                     | 66.6  | 68.4  | 72.4  | 69.9  | 64.8  | 58.8  |
| <b>Primary balance (% of GDP)</b>                                          | -1.6  | -8.2  | -4.8  | -2.1  | -1.4  | -1.0  |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 61.9  | 62.1  | 62.0  | 61.9  | 61.7  | 61.4  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 86.1  | 86.2  | 86.2  | 86.1  | 85.9  | 85.7  |
| <b>GHG emissions growth (mtCO2e)</b>                                       | 3.9   | 4.0   | 3.9   | 3.9   | 3.7   | 3.7   |
| <b>Energy related GHG emissions (% of total)</b>                           | 8.7   | 8.6   | 8.6   | 8.7   | 8.9   | 9.2   |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2020-EICVMB. Actual data: 2020. Nowcast: 2021-2023. Forecasts are from 2024 to 2026.

b/ Projection using neutral distribution (2020) with pass-through = 0.87 (Med (0.87)) based on private consumption per capita in constant LCU.

# THE GAMBIA

**Table 1** **2023**

|                                                        |       |
|--------------------------------------------------------|-------|
| Population, million                                    | 2.8   |
| GDP, current US\$ billion                              | 2.3   |
| GDP per capita, current US\$                           | 845.8 |
| International poverty rate (\$2.15) <sup>a</sup>       | 17.2  |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 47.0  |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 80.6  |
| Gini index <sup>a</sup>                                | 38.8  |
| School enrollment, primary (% gross) <sup>b</sup>      | 92.3  |
| Life expectancy at birth, years <sup>b</sup>           | 62.1  |
| Total GHG emissions (mtCO2e)                           | 3.3   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2020), 2017 PPPs.

b/ WDI for School enrollment (2022); Life expectancy (2021).

**TABLE 2 The Gambia / Macro poverty outlook indicators**

(annual percent change unless indicated otherwise)

|                                                                            | 2021  | 2022 | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|-------|------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 5.3   | 4.9  | 5.3   | 5.5   | 5.8   | 5.4   |
| Private consumption                                                        | 7.2   | 3.4  | 3.3   | 3.7   | 4.1   | 4.1   |
| Government consumption                                                     | -7.9  | 2.3  | 2.4   | 2.5   | 2.6   | 2.7   |
| Gross fixed capital investment                                             | -8.7  | 15.1 | 13.7  | 14.1  | 11.8  | 9.1   |
| Exports, goods and services                                                | -27.2 | 8.5  | 18.9  | 18.0  | 20.1  | 22.0  |
| Imports, goods and services                                                | -15.2 | 16.2 | 11.0  | 12.0  | 11.0  | 10.0  |
| <b>Real GDP growth, at constant factor prices</b>                          | 5.3   | 4.9  | 5.3   | 5.5   | 5.8   | 5.4   |
| Agriculture                                                                | 13.7  | 3.6  | 7.2   | 6.6   | 6.2   | 5.1   |
| Industry                                                                   | 2.9   | 3.1  | 6.5   | 6.4   | 6.1   | 6.1   |
| Services                                                                   | 2.8   | 6.0  | 4.1   | 4.8   | 5.6   | 5.4   |
| <b>Inflation (consumer price index)</b>                                    | 7.4   | 11.5 | 16.9  | 15.9  | 10.5  | 6.5   |
| <b>Current account balance (% of GDP)</b>                                  | -4.3  | -4.2 | -4.5  | -5.1  | -3.2  | -2.3  |
| <b>Fiscal balance (% of GDP)</b>                                           | -4.8  | -5.0 | -2.6  | -2.1  | -1.3  | -1.0  |
| <b>Revenues (% of GDP)</b>                                                 | 16.8  | 17.7 | 20.6  | 21.8  | 20.4  | 20.2  |
| <b>Debt (% of GDP)</b>                                                     | 83.9  | 83.4 | 75.8  | 68.9  | 64.6  | 59.5  |
| <b>Primary balance (% of GDP)</b>                                          | -1.8  | -2.9 | -0.4  | 1.0   | 1.4   | 1.5   |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>a,b</sup></b>       | 16.1  | 16.4 | 16.9  | 17.2  | 16.5  | 15.9  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>a,b</sup></b> | 45.4  | 45.9 | 47.0  | 47.6  | 46.7  | 45.8  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>a,b</sup></b> | 80.3  | 81.5 | 82.3  | 83.2  | 82.9  | 81.8  |
| <b>GHG emissions growth (mtCO2e)</b>                                       | 4.2   | 3.4  | 2.9   | 2.5   | 2.5   | 2.5   |
| <b>Energy related GHG emissions (% of total)</b>                           | 20.7  | 21.0 | 21.4  | 21.7  | 22.0  | 22.3  |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Calculations based on 2020-IHS. Actual data: 2020. Nowcast: 2021-2023. Forecasts are from 2024 to 2026.

b/ Projections using microsimulation methodology.

# GHANA

**Table 1** **2023**

|                                                        |        |
|--------------------------------------------------------|--------|
| Population, million                                    | 34.1   |
| GDP, current US\$ billion                              | 76.2   |
| GDP per capita, current US\$                           | 2234.2 |
| International poverty rate (\$2.15) <sup>a</sup>       | 25.2   |
| Lower middle-income poverty rate (\$3.65) <sup>a</sup> | 48.8   |
| Upper middle-income poverty rate (\$6.85) <sup>a</sup> | 78.5   |
| Gini index <sup>a</sup>                                | 43.5   |
| School enrollment, primary (% gross) <sup>b</sup>      | 97.9   |
| Life expectancy at birth, years <sup>b</sup>           | 63.8   |
| Total GHG emissions (mtCO <sub>2</sub> e)              | 18.3   |

Source: WDI, Macro Poverty Outlook, and official data.

a/ Most recent value (2016), 2017 PPPs.

b/ Most recent WDI value (2021).

**TABLE 2 Ghana / Macro poverty outlook indicators**

(annual percent change unless indicated otherwise)

|                                                                            | 2021  | 2022  | 2023e | 2024f | 2025f | 2026f |
|----------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|
| <b>Real GDP growth, at constant market prices</b>                          | 5.1   | 3.8   | 2.9   | 2.9   | 4.4   | 4.9   |
| Private consumption                                                        | 0.8   | 4.8   | 4.6   | 4.9   | 5.0   | 5.7   |
| Government consumption                                                     | 82.1  | -31.7 | -8.0  | 1.9   | -0.6  | -2.2  |
| Gross fixed capital investment                                             | 4.5   | 28.6  | 3.9   | -2.7  | 9.3   | 9.9   |
| Exports, goods and services                                                | 69.1  | 9.6   | 5.8   | 10.3  | 6.4   | 7.2   |
| Imports, goods and services                                                | 113.8 | 13.8  | 6.3   | 8.3   | 9.2   | 10.1  |
| <b>Real GDP growth, at constant factor prices</b>                          | 5.4   | 3.7   | 2.9   | 2.9   | 4.4   | 4.9   |
| Agriculture                                                                | 8.5   | 4.2   | 4.5   | 3.2   | 5.4   | 3.9   |
| Industry                                                                   | -0.5  | 0.6   | -1.2  | 3.8   | 4.1   | 5.8   |
| Services                                                                   | 9.4   | 6.2   | 5.5   | 2.0   | 4.1   | 4.8   |
| <b>Inflation (consumer price index)</b>                                    | 10.0  | 31.5  | 40.3  | 23.2  | 11.5  | 8.0   |
| <b>Current account balance (% of GDP)</b>                                  | -3.7  | -2.3  | -1.7  | -1.9  | -2.2  | -2.4  |
| <b>Net foreign direct investment inflow (% of GDP)</b>                     | 2.0   | 2.0   | 1.5   | 2.7   | 3.3   | 3.4   |
| <b>Fiscal balance (% of GDP)<sup>a</sup></b>                               | -11.4 | -11.0 | -4.7  | -5.0  | -4.0  | -3.5  |
| <b>Revenues (% of GDP)</b>                                                 | 15.3  | 15.6  | 15.7  | 16.7  | 17.3  | 18.2  |
| <b>Debt (% of GDP)<sup>a,b</sup></b>                                       | 76.7  | 88.7  | 86.1  | 83.6  | 80.9  | 77.9  |
| <b>Primary balance (% of GDP)<sup>a</sup></b>                              | -4.1  | -3.6  | -0.5  | 0.6   | 1.6   | 1.4   |
| <b>International poverty rate (\$2.15 in 2017 PPP)<sup>c,d</sup></b>       | 24.8  | 26.8  | 30.3  | 32.9  | 33.2  | 32.2  |
| <b>Lower middle-income poverty rate (\$3.65 in 2017 PPP)<sup>c,d</sup></b> | 47.0  | 50.2  | 55.3  | 58.7  | 59.4  | 57.5  |
| <b>Upper middle-income poverty rate (\$6.85 in 2017 PPP)<sup>c,d</sup></b> | 76.7  | 78.9  | 82.8  | 84.6  | 84.8  | 83.9  |
| <b>GHG emissions growth (mtCO<sub>2</sub>e)</b>                            | 6.0   | 11.8  | 7.3   | 4.8   | 5.9   | 7.1   |
| <b>Energy related GHG emissions (% of total)</b>                           | 129.8 | 121.2 | 117.0 | 114.3 | 110.9 | 106.8 |

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.

Notes: e = estimate, f = forecast.

a/ Fiscal and debt forecasts do not factor in the impact of the ongoing Debt Restructuring (DR) as the process is yet to conclude.

b/ Starting from 2022, public debt numbers include, in addition to central government debt, explicitly guaranteed (and certain implicitly guaranteed) SOE debt, cocobills issued by Cocobod, and reconciled domestic arrears to suppliers.

c/ Calculations based on 2016-GLSS-VII. Actual data: 2016. Nowcast: 2017-2023. Forecasts are from 2024 to 2026.

d/ Projections using microsimulation methodology.

Source: The World Bank's Macro Poverty Outlook report from spring 2024

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