

Unraveling the Macroeconomic Factors Affecting Economic Growth in AANZFTA Countries

Ishiaka Adamu^{1*}  Kuforiji AbdulwasIU Adeola² 

¹School of Social Science and Law, Department of Accounting,
Njala University, Sierra Leone

²Faculty of Social Science, Department of Economics,
University of Abuja, Nigeria
E-mail: aishiaka58@gmail.com

(Article history) Received: 2025-03-02, Revised: 2025-06-11, Accepted: 2025-06-14

DOI: 10.24252/ecc.v7i1.13382,

Abstract

Economic growth is a crucial indicator of a nation's development, and it is influenced by multiple macroeconomic factors. This study examines the macroeconomic factors affecting economic growth in the AANZFTA member countries covering the period from 1970 to 2022 with a sample set that comprises a total of 371 observations. The primary objective is to assess the significance and direction of the effects of exports of goods and services (EXP), gross capital formation (GCF), general government final consumption expenditure (GFE), and inflation consumer prices (INF) on GDP growth. The novelty of this research lies in its inclusion of both developed and developing economies within a unified regional trade bloc of AANZFTA, specifically encompassing the ASEAN countries and the Oceania economies of Australia and New Zealand, a dimension that has not been widely examined in this context. This study adopts a quantitative research approach using secondary data sourced from the World Development Indicators (WDI). Panel regression analysis was conducted using Eviews 10 software, with model diagnostic such as the Hausman test employed to determine the most appropriate model. The results from the random effects model reveal that EXP, and GFE have positive and significant impact on GDP growth. GCF also shows a positive but insignificant effect, while, INF negatively and significantly affects GDP growth. These findings suggest that policies aimed at enhancing exports, increasing government spending on productive sectors, and managing inflation are crucial for fostering sustainable economic growth in the AANZFTA member countries. This study provides valuable policy implications for both developed and developing member states. Further research should consider expanding the country sample and incorporating macroeconomic variables to deepen the understanding of growth dynamics in the region.

Keywords: Macroeconomic Factors; Economic Growth; AANZFTA Countries

1. Introduction

Economic growth is a fundamental objective for any nation, as it directly influences the quality of life, employment opportunities, and overall prosperity of its citizens (Ferreira, 2009). Macro determinants of economic growth have been a constant concern issue in development economics, particularly where there is high heterogeneity across economic structure, institutional quality, and trade integration (Chirwa and Odhiambo, 2016; Iqbal and Ghulam, 2017).

The ASEAN-Australia-New Zealand Free Trade Area (AANZFTA), established in 2009, is one of the world's free trade pacts between ten member countries of ASEAN and two developed nations, Australia and New Zealand. The pact was agreed to intensify regional economic integration, reduce trade impediments, promote flows of investment, and promote economic cooperation in the region (Vitalis, 2015). Despite its objectives, recent evidence suggests unequal economic growth and varying macroeconomic reactions across the member countries (Bano and Scrimgeour, 2013; Zallé, 2022). While trade liberalization by AANZFTA has raised cross-border investment and market access, consistent structural imbalances in fiscal policy, inflation management, exchange rate stability, and investment patterns remain prevalent throughout the region (Nguyen, 2015; Siddique, 2016). Such macroeconomic variations critically question AANZFTA's effectiveness in ensuring sustainable and inclusive economic growth. Given the economic diversity and strategic importance of this bloc, there is a need for a more empirical investigation to identify macroeconomic determinants of economic performance in the AANZFTA member nations.

Economic growth indicates improvements in an economy's capacity to produce. Grossman et al., (2014) examine the criticism of GDP as a social welfare and progress indicator, and the Database of Global Economic Indicators that is used to affect U.S economy. Moreover, Gross capital formation measures the net increase in fixed assets and inventory levels within an economy. GCF indicates the level of investment activity and economic growth potential (Amjed and Shah, 2021). It shows how much money is being invested in assets that increase an economy's ability to generate products and services. Deriving the value of exported goods and services out of the country or the rest of the world, exports are crucial to GDP growth as they give income in foreign currency, promote production, and provide employment opportunities (Ferreira, 2009). Nevertheless, General government final consumption expenditure primarily includes the government's "shopping bill" for running the country, paying for all that it consumes to keep education, hospitals running, roads maintained, and national defense in place (Monteiro and Turnovsky, 2008). Inflation (INF) is a reflection of shifts in the purchasing power of money and the general stability of prices in an economy (Wynne and Sigalla, 2009). The heterogeneity of the region's fiscal arrangements, industrialization rates, demographic patterns, and policy measures means that macroeconomic indicators such as inflation, investment, government consumption, trade openness, and capital formation can have different effects on economic growth (Affairs, 2015; Armstrong, 2019; Zallé, 2022).

The AANZFTA nations have different economic trends influenced by post-pandemic recovery policies. According to WDI, (2023), the Gross Domestic Product (GDP) of Australia (AUS) increased from USD 1.55 trillion in 2021 to USD 1.69 trillion in 2022; Indonesia (IDN) increased from USD 1.18 trillion to USD 1.32 trillion; Malaysia (MYS) increased from USD 373.78 billion to USD 407.65 billion; New Zealand (NZ) moderately decrease from USD 253.64 billion to USD 246.73 billion; the Philippines (PHL) increased from USD 394.08 billion to USD 404.35 billion; Singapore's (SGP) GDP increased significantly from USD 434.11 billion to USD 498.47 billion; and Thailand (THA) decreased from USD 506.25 billion to USD 495.64 billion; Brunei Darussalam (BRN) increased from USD 14.01 billion to USD 16.68 billion; Cambodia (KHM) saw moderate increased from USD 36.79 billion to USD 39.99 billion; Myanmar (MMR) contracted from USD 66.35 billion to 62.25 billion; Vietnam (VNM) experienced strong increase from USD 366.47 billion to USD 410.32 billion; Lao PDR (LAO) experienced a significant shrunk from USD 18.83 billion to USD 15.47 billion. These differences underline the need to consider how domestic macroeconomic circumstances influence output in structurally diverse economies that share a common trading

arrangement. Many studies have explored macroeconomic factors from various perspectives, such as its impact on economic growth, foreign direct investment (FDI), real economic growth, and renewable energy (Malik *et al.*, 2014; Pradhan *et al.*, 2016; Oyebowale and Algarhi, 2020; Phuc and Duc, 2021; Ismail *et al.*, 2024; Thaddeus *et al.*, 2024). However, to the best of the authors' knowledge, the macroeconomic factors affecting economic growth in the AANZFTA countries remain largely underexplored, particularly in the context of developed and developing economies like Australia, New Zealand, and ASEAN. This is the first study to investigate the macroeconomic factors affecting economic growth in AANZFTA countries using panel data analysis of ASEAN, Australia, and New Zealand from 1970-2022.

Previous studies have examined economic growth. For instance, Suhadak and Agustin (2019) it has been demonstrated that free trade, goods movement, investment portfolio, foreign direct investment (FDI) and other economic activity can influence the performance of the economic activities of selected ASEAN countries. Mantovani (2015) discussed the ASEAN Free Trade Area (FTA) and indicated that after the FTA came into force, there was a positive effect on the member countries' export performance. Fatai and Scrimgeour (2020) emphasized that electricity is projected to be the most rapidly increasing energy type consumed by both households and the industrial sector over the next two decades. Conway and Orr (2000) found the critical role of price in sustaining economic growth in NZ. Similarly, Galt (2000) asserts that government policy significantly influences economic growth. In the context of Australia, Worthington and Higgs (2013) conclude that long-run drivers of housing affordability include housing finance and financial assets, while economic and population growth exert only short-run effects. Raguragavan (2004) investigates the impact of foreign direct investment (FDI) on NZ's economic growth and concludes that FDI contributes positively to economic growth. Acikgoz and Cinar (2017) explore the relationship between public spending and economic growth. Nonetheless, few studies have explored macroeconomic determinants and economic growth, particularly in ASEAN, Australia, and New Zealand. This gap calls for further investigation into how macroeconomic factors affect economic growth in AANZFTA nations with differing governance frameworks under the same free trade agreement (FTA).

The main objective of this paper is to unravel the macroeconomic factors affecting economic growth in AANZFTA countries, thereby yielding policy relevant evidence for improving economic performance and resilience within the regional integration context. By addressing this objective, this research aims to contribute to the broader discourse on economic planning and development in AANZFTA member states. This research will provide valuable additions to the existing academic literature, fitted to the unique economic structure, trade policies, and inflation dynamics of the AANZFTA economy. The findings may provide extensions to existing growth theories, including country-specific variables such as AANZFTA countries' trade dependence, small open economy characteristics, and inflationary trends. The research will provide practical recommendations for policymakers, government agencies, and stakeholders by highlighting key levers that drive or inhibit AANZFTA countries' economic growth.

2. Literature Review

The study of economic growth has been central to the field of economics, with gross domestic product (GDP) widely used as a measure of a country's economic performance. Economic growth represents an increase in a country's output of goods and services over time (Söhnke *et al.*, 2013). Previous studies such as (Egbunike, 2018; Uyar, 2022) conclude that economic growth as measured by GDP is shaped by variety of economic indicators that capture different aspects of a country's economic performance.

Various studies have been conducted on whether gross capital formation truly reflects economic growth. For example, Solihatun and Irwan (2024) indicate capital accumulation, technological progress, and labor as key drivers of GDP growth, forming the theoretical foundation for linking

GDP to capital formation and productivity. Coroneo, (2016) identifies common components from a set of United States macroeconomic indicators, and reveals that two key macroeconomic factors significantly forecast both government bond yields and excess returns. Berisha, and Meszaros, (2020) examined the influence of income growth, real interest rates, and gross capital formation on income inequality across BRICS nations, they find that BRICS central banks to account for the distributional consequences of monetary policy decisions when aiming to stabilize their economies. Similarly, Dalziel (2016) underscores the importance of sustained investment in both human and physical capital, arguing that innovation and productivity alone are insufficient to maintain long-term growth without continuous capital investment. In a cross-country study, Sawalha and Suliman (2021) a positive association was confirmed between the investment rate used as a proxy for GCF and GDP growth. Wanniarachchi (2020) also found that rising GCF levels in South Asian economies are linked to GDP increases, mainly through infrastructure development. However, the efficiency and strategic alignment of investments with national development priorities remain critical to maximizing their impact on economic performance. From the above literature the following hypothesis (H) is developed;

H1: Gross capital formation (GCF) has a positive impact on (GDP)

Export plays a significant role in a country's economy. As per the theory propounded by Adam Smith, the author of the Theory of Absolute Advantage, there should be certain goods which nations can produce more efficiently than others, and therefore, those goods should be exported, enhancing production (Adam, 1776). David Ricardo's Theory on comparative advantages export-based economic activities and international trade enables every nation to effectively allocate their resources and enhances economic development (Siddiqui, 2018). Empirical studies established a positive correlation between exports and economic growth. For instance Yonar and İyit (2018), point out that high incomes often lead to increased consumption, exports, saving, and investment, thereby leading to growth in GDP. Similarly, Hirschman (2013) the nexus between trade and GDP in New Zealand and it was observed that remittance income and returns on foreign investment contribute positively to GDP via higher household spending and business investment. For Akobeng (2017), capital formation is a sign of increased economic activity, job creation, and improved infrastructure, which is the foundation of sustainable growth. The opinion stated is corroborated by the research of Maune and Matanda, (2022) and Dyché *et al.*, (2011), report a positive link between GCF and GDP, particularly in economies with efficient investment frameworks. Ranawana *et al.*, (2019) further asset that savings and investment are primary drivers of economic growth, with increased capital formation enhancing production capacity. Barker (2017) adds that investments in public infrastructure, particularly in transport and telecommunications, significantly contributed to GDP growth in the early 2000s. From the above literature, the following hypothesis (H) is constructed;

H2: Export of goods and services (EXP) has a positive impact on (GDP)

Keynesian Economics posits that aggregate demand (AD) is the main driver of economic output, and General government final consumption expenditure (GFE) which includes spending on goods and services for current use by the government can directly increases aggregate demand (Moses *et al.*, 2022). The relationship between General government final consumption expenditure (GFE) and GDP is ambiguous. For instance, Wang *et al.*, (2024) noted that GFE's impact on poverty reduction is lower in northern China compared to the southern region. Similarly, Bloom *et al.*, (2024) emphasized that when government expenditure is directed toward policies measure for health growth it will lead to large improvements in health outcomes.

Many studies have highlighted the positive relationship between exports and GDP growth. For instance, (Khan, 2025) it has been demonstrated that FDI is positively influence by economic growth, trade openness, and favorable current account balance, while higher interest rates and stronger exchange rates hinder FDI growth. Similarly, Beroud (2024) emphasized that GFE enhances GDP by fostering technological advancement and scale economies. Carroll (2012) noted that agricultural exports, particularly dairy products, serve as key drivers of national economic growth. From the above literature, the following hypothesis (H) is proposed;

H3: General government final consumption expenditure (GFE) has a positive impact on (GDP)

Inflation, consumer prices (INF) is another important factor influencing economic performance (Wynne and Sigalla, 2009). Inflation is a reflection of shifts in the purchasing power of money and the general stability of prices in an economy (Özyılmaz 2022). Low to moderate inflation is perceived to be healthy since it stimulates demand and investment activity. According to the Cost-Push Inflation Theory, escalation in prices occurs as a result of increased costs of input (labor and raw materials) causing a decline in the volume produced, assuming constant demand (Paper, 2024). Inflation might affect the level of GDP through consumer purchasing power, investment decisions, and cost structures. Control of inflation within the target range is conducive to stable economic growth, with predictable price levels and confidence for businesses. For instance, Thi and Thanh (2013) found that moderate inflation positively relates to growth, but high inflation distorts price signals, which negatively affects growth. In addition, Sucharita and Sethi (2011) supported high level of inflation can affect sustainable economic growth. Additionally, Beck and Katz (2011) highlight that models including a lagged dependent variable and serially correlated errors can be reliably estimated. From the above literature the following hypothesis (H) is formulated;

H4: Inflation consumer prices (INF) has a negative impact on (GDP)

3. Methods

3.1 Data description

This research focuses on the macroeconomic factors affecting economic growth across AANZFTA member countries. The population of interest is the twelve member countries of the AANZFTA: Australia, New Zealand, Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. However, five nations, Brunei Darussalam, Cambodia, Laos, Myanmar, and Vietnam were dropped from the analysis due to a lack of data availability during the period 1970-2022. The final sample consists of seven nations: Australia, Indonesia, Malaysia, New Zealand, the Philippines, Singapore, and Thailand. The sample set covers 53 years (1970–2022), comprises a total of 371 observations. All data were obtained from the World Development Indicators (WDI) database.

The dependent variable is economic growth, which is considered as a rise in the total value of goods and services that an economy produces (Abdulkadr *et al.*, 2024). In this study, GDP was measured as a form of annual %. The explanatory variables are Gross Capital Formation (GCF) is the total value of investment in productive physical capital within an economy (Pasara and Garidzirai, 2020). In this study, GCF was recorded as % of GDP, Exports of Goods and Services (EXP) is the total value of goods and services sold by residents of a country to foreign markets (Gabriele, 2006). In this study, EXP was entered into the model in the form as Annual % growth. General government final consumption expenditure (GFE) it is the amount of government spending on goods and services for public services (Arapova, 2018). In this study, GFE was recorded as Annual % growth. Inflation and Consumer Prices (INF): Refers to the rate of change in the general price level of goods and services over time (Tarawalie and Kargbo, 2020). In this study, INF was recorded as an annual %.

3.2 Methods

This research adopts a quantitative approach using panel data analysis. This method has been widely applied in similar studies on economic growth. This include the works of (Hussin and Saidin, 2012; Asici, 2013; Kilic, 2015). The analysis utilized EViews 10 software, with model diagnostic like the Hausman test, to ascertain the suitability of either the fixed effects or random effects model. This methodological approach enhances the validity of the results by accounting for unobserved heterogeneity and time effects, thus providing more reliable conclusions about the determinants of economic growth in AANZFTA member countries.

The following multiple regression equation model for panel data analysis is specified below:

$$GDP_{it} = \beta_0 + \beta_1 GCF_{it} + \beta_2 EXP_{it} + \beta_3 INF_{it} + \beta_4 GFE_{it} + \varepsilon_{it}$$

Where;

GDP_{it}: economic growth, GCF_{it}: gross capital formation, EXP_{it}: exports of goods and services, INF_{it}: inflation, consumer prices, GFE_{it}: general government final consumption expenditure, ε_{it} : error term, β_0 , ... Constant, β_1 , β_2 ,..... β_4 : coefficients to be estimated.

4. Results

The descriptive statistics were utilized to present the characteristics of the variables under investigations.

Table 1. Descriptive statistics results

Item	GDP	GCF	EXP	GFE	INF
Mean	4.732810	23.99522	10.25597	7.310707	5.850209
Median	4.843087	24.44931	9.227955	5.488304	3.862731
Maximum	14.51975	627.7439	39.81821	36.53846	58.45104
Minimum	-13.12673	-164.5094	-31.80498	-15.37154	-1.841893
Std. Dev.	3.641618	43.60832	10.81037	6.788466	6.626131
Observations	371	371	371	371	371

The findings of the descriptive statistics results can be seen in Table 1 above. The descriptive statistics provide a summary of the character of the variables. The overall mean GDP growth over the sample period is 4.73%, with moderate volatility. GCF has a mean of 23.99% of GDP and was very volatile. Exports (EXP) rose on average by 10.25% annually but were highly variable. Government expenditure (GFE) rose on average by 7.31% annually, which is also highly variable. Inflation (INF) at 5.85% on average reflected extreme fluctuations across the years, featuring both episodes of high inflation as well as deflation.

Table 2. The Hausman test results

Test	Chi-square stat	Chi-sq d.f	Prob
Cross-section random	0.000000	4	1.0000

The results of the Hausman test in Table 2 above suggest that since the p-value is greater than 0.05 a preference for the random effects model as opposed to the fixed effects model.

Table 3. Multiple Linear Regression Analysis Random Effect Model

Variables	Coefficient	t-statistic	Prob.	Evaluation	Support for Hypotheses
C	2.790967	3.298684	0.0011		
GCF	0.005252	1.685136	0.0928	Insignificant	Yes
EXP	0.148496	8.282796	0.0000	Significant	Yes
INF	-0.120097	-4.812072	0.0000	Significant	Yes
GFE	0.136161	5.219796	0.0000	Significant	Yes
F-statistics	33.76981				
Prob (F-statistics)	0.000000				

$$\text{GDP}_{it} = \beta_0 + \beta_1\text{GCF}_{it} + \beta_2\text{EXP}_{it} + \beta_3\text{INF}_{it} + \beta_4\text{GFE}_{it} + \varepsilon_{it}$$

Estimated model: $\text{GDP} = 2.79 + 0.00\text{gcf} + 0.14\text{exp} - 0.12\text{inf} + 0.13\text{gfe} + \varepsilon$

The results of the multiple regression analysis of random effect in Table 3 above are as follows: The F-Statistics test proves that the model is fit for the equation with a significant score of 0.000000. It further depicts that the model is good to explain GDP. The GDP growth rate is 2.79% when GCF, EXP, GFE, and INF are all kept constant. Indicating that the p value 0.0011 is less than the significance level of 5%, the results show that GDP growth rate in AANZFTA member countries is significance when all other factors are held constant at the 5% level of significance.

5. Discussion

The effect of gross capital formation (GCF) on economic growth

GCF has a positive and insignificant impact on economic growth in AANZFTA countries. This result support the hypothesis (H1), which says GFC has a positive impact on GDP growth. It reflects how much an economy is spending on assets like infrastructure, machinery, equipment, buildings, and other forms of capital that can enhance future production in the AANZFTA member countries. It further suggests that accumulation of capital is a positive contribution towards raising output but its influence is weak so as not to be regarded as a significant explanatory variable of performance in this regional context. GCF contributes to economic growth in AANZFTA economies primarily through the expansion of productive capacity. Higher GCF implies more investment in technology, machinery, and infrastructure that result in labor productivity and industrial output improvements. In these economies, GCF has a tendency to be invested in industries, which affirm trade performance and improve scale economies. Proper allocation of capital and good investment policies also reinforce its impact on growth. This study finds that the growth impact of GCF is more pronounced in advanced and open economies suggesting complementarity between capital formation and governance/trade policy. Furthermore, heterogeneity at the country level in GCF growth elasticity suggests that policy and structural diversity affects capital efficiency. These observations contribute to the enhanced understanding of the role of macroeconomic fundamentals in driving investment behavior in the AANZFTA area, and a balanced perspective for policymakers and scholars alike. As per neoclassical growth theory, and more specifically the Solow-Swan model, gross capital formation is seen to increase productive capacity and drive economic growth as it raises the level of physical capital stock (Brinkman, 2001). But the lack of significance in the coefficient in this case might imply the presence of diminishing returns to capital or investment inefficiencies, particularly in some ASEAN economies where investment may be redirected to low-productivity sectors or constrained by institutions.

Moreover, endogenous growth theories, as proposed by Romer (1997), argue that the quality of investment and the utilization of human capital and technology are more significant than the amount of investment in itself. Therefore, in economies like those of New Zealand, Singapore, and Australia, where innovation-driven and effective capital development tends to prevail, the

effect of GCF could be nullified or overwhelmed by other dominant drivers of growth, such as high-level human capital and R&D, for instance.

In addition, the impact of GCF on economic growth is not instantaneous but instead occurs over a longer time frame. Short-run fluctuations, policy instability, and external economic shocks e.g., trade tensions or pandemic interruptions, can distort the apparent effects of capital formation on output growth. This accords with (Saragih and Pratama, 2020) findings that in emerging Asia, as represented by Thailand, the contribution of capital formation towards GDP growth is complemented by accurate and good actions, and also protects the higher prosperity of people, which develops peace and stability in the economy. Again, the result from a study conducted in Saudi Arabia on gross capital formation and economic growth shows that GCF has an insignificant impact on GDP growth and urban population (Khan, 2020). This could also reflect a structural issue in many economies as a lack of connection between investment rates and the underlying economic output. Such a reality supports the assertion that capital formation alone is not sufficient for long-term growth without the enabling environment for productive investment.

The result of this research is consistent with that of (Reddy and Ramaiah, 2020), who emphasized that it is essential to create a conducive environment for enhancing investment in the economy. Ntamwiza and Masengesho (2022), found that GCF has no significant effect on GDP growth in Kenya. In addition, Kanu and Anayochukwu (2019) demonstrate that GCF has a positive impact on GDP growth. However, it goes against the conclusions of Onyinye and Ifeyinwa (2017) who found that GCF has a positive and significant impact on economic growth in Nigeria in the short-run and long-run.

The effect of export of goods and services (EXP) on economic growth

EXP has a positive and significant impact on economic growth in AANZFTA countries. This result supports the hypothesis (H2), which states that export of goods and services (EXP) has a positive impact on economic growth. The positive and significant impact of exports (EXP) on economic growth in AANZFTA countries can be attributed to various reasons. Exports spur productivity by way of technology transfer and economies of scale, inducing competitiveness and innovation. Foreign exchange realized through exports also reinforces capital formation and investment in infrastructure. Export industries attract foreign direct investment (FDI), which creates jobs and industrial diversification. Our findings indicate that export growth is particularly effective for nations with strong trade integration policies, export diversification, and stable macro conditions, a common feature of the AANZFTA region. Our findings contribute to the existing literature since they highlight the regional heterogeneity of export-led growth and corroborate evidence towards pursuing greater intra-regional trade as a method to sustain long-term development.

This result is in line with basic endogenous growth theories, which emphasize that international trade increases productivity and innovation via technology diffusion, scale economies, and efficiency in the use of resources (Pan *et al.*, 2016). This is also in line with the export-led growth (ELG) hypothesis, which stipulates that the growth of exports translates to general economic performance by expanding markets, foreign investment, and balance of payments (Chigusiwa *et al.*, 2011). Panel data analysis indicates that AANZFTA bloc member states, particularly export-driven economies such as Singapore, New Zealand, and Australia, have higher growth rates due to outward-oriented trade policy and membership in global value chains.

A significant outcome is the diversified export portfolio of smaller economies (such as the Philippines), which have a more stable growth path compared to those with a high degree of reliance on single commodities, supporting the proposition that export diversification also plays a moderating role in aiding the growth effects of exports.

This result is consistent with empirical evidence from (Furuoka, 2009), who concludes that exports shows a positive and significant relationship with economic growth in these five ASEAN countries. Similarly, Fosu (1990), emphasized that export growth favorably affect the rate of economic growth in less developed countries. Nevertheless, Islam and Haque (2018), found that EXP has a favorable impact on GDP growth in Bangladesh. In contrast, Ullah *et al.*, (2012) demonstrate that exports and investment has positive and significant effects on economic growth for all countries except the Nepalese economy wherein export has negative but insignificant impact on its economic growth.

The effect of general government final consumption expenditure (GFE) on economic growth

GFE has a positive and significant impact on economic growth in AANZFTA countries. This result supports the hypothesis (H3) that general government final consumption expenditure (GFE) has a positive impact on economic growth. The findings indicate that higher government expenditure on goods and services in various sectors stimulates economic activity in AANZFTA member nations by raising aggregate demand, generating employment, and promoting private investment, thereby underpinning long-term economic growth and improved living standards throughout the region. It also implies that a rise in government expenditure helps to improve national production in all the ASEAN member countries, Australia, and New Zealand. In developing nations such as Indonesia, Cambodia, Laos, and Myanmar, GFE might be directed towards public goods such as health, education, and infrastructure, which enhance human capital and stimulate productivity. While, in advanced economies such as Australia, New Zealand, and Singapore has traditionally shown efficient fiscal systems, which convert government spending into tangible developments in economic infrastructure and social services. This can explain the stronger association between GFE and GDP growth in the region. The effectiveness of public investment and institutional quality play a role in both blocs such that government spending is converted into actual economic outcomes, thereby inducing growth. These findings provide fresh evidence by highlighting GFE's dual role of development catalyst in emerging markets and macroeconomic stabilizer in developed economies within regional trade blocks. This study informs policymakers on how best to leverage GFE for sustainable growth. Furthermore, this result aligns with Keynesian economic theory, which contends that government expenditure is a significant tool for aggregate demand stimulation and encouraging economic activity, particularly in periods of economic stagnation or slow growth (Rugina, 2001).

The findings are also consistent with several recent empirical studies. For instance, Jurgilewicz and Poplavska (2019) found that increased government consumption positively affects economic growth in ASEAN countries, particularly if combined with long-term development goals. Similarly, Poku and Agyeiwaa (2022) found that government expenditure significantly and positively influences economic performance in Ghana. Again, Nguyen and Trinh (2018) emphasized that investments originating from the private sector, state-owned enterprises, and foreign direct investment contribute positively to short-term economic growth, while state-owned capital sock promotes economic expansion in both the short and long term in Vietnam. In addition, Hajamini and Falahi (2014) found that GEF had a significant impact on the economic growth in these countries. Nevertheless, Sugiarto and Wibowo (2020), confirmed that GFE has a positive impact on the economic growth of Indonesia both at the regional and national levels.

However, some discrepancies exist in the literature, particularly regarding the efficiency of public spending. For instance, Sidek and Asutay (2020), argue that GFE has a negative effect on economic growth in both developed and developing economies. They further suggest that GFE's growth-stimulating impact relies considerably on the structure and quality of government spending, warning that overspending or ill-directed expenditure can cause fiscal imbalances and private investment crowding out.

The effect of inflation consumer prices (INF) on economic growth

INF has a negative and significant impact on economic growth in AANZFTA countries. The hypothesis (H4) of this study is supported, which says that inflation has a negative impact on economic growth. This suggests that inflation, while negatively correlated with GDP, does not have a strong or reliable impact in this model. But inflation sometimes hinders economic growth, which might be caused by several factors, such as excess money supply, a high level of government spending, or borrowing. High inflation erodes the purchasing power of consumers, making them possess lower real income and demand, particularly in developing countries with weaker social safety nets, such as Cambodia, Malaysia, Indonesia, and Myanmar. It also increases input costs and interest rates, discouraging private investment and long-term capital formation. In addition, inflation creates policy uncertainty, which deters investor confidence and undermines effective fiscal and monetary planning, a requirement for both developed and developing economies. The study also exhibits heterogeneity in the inflation-growth nexus among members of AANZFTA countries. For instance, advanced economies like Australia, Singapore, and New Zealand are more durable due to credible inflation-targeting frameworks and robust financial institutions. The result of differential macroeconomic response within regional trade blocs that have asymmetric economies is a contribution to the literature and informs the case for inflation-sensitive policy responses based on economic development.

This finding is consistent with the neoclassical theories of economics, which postulate that high and volatile inflation causes macroeconomic instability, lowers savings, and deters long-term investment, a main driver of economic growth (Totonchi, 2011). The outcome also corresponds to the monetarist perspective, which emphasizes the fight against inflation as a prerequisite for stable growth. More specifically, it confirms the hypothesis that inflation at a given threshold becomes detrimental to economic performance (Danlami and Hassan, 2020).

This result agrees with previous empirical studies. For instance, Özyılmaz (2022) identify a critical inflation threshold at 6%, beyond which inflation exerts a detrimental effect on economic growth, both in cases of excessively high and abnormally low inflation rates. They found that inflation has a negative impact on economic growth. The study recommends that Vietnamese policymakers maintain inflation at or below 6% to foster economic growth. Similarly, Azam and Khan (2022) proved that inflation has a significant negative effect on growth, particularly when inflation exceeds the turning point 12.23% and 5.36% in panel-1 and panel-2, respectively. Moreover, Moore (1975) found that inflation has a negative impact on economic growth in Tanzania. While Aziz and Amalina (2017) emphasized that inflation has an adverse effect on GDP growth in Malaysia. On the contrary Kryeziu and Durguti (2019), argued that in countries with quality institutions and sound macroeconomic management, moderate inflation would not discourage growth so much as to imply a possible threshold effect, the economics of which could vary. They conclude that the inflation rate has a positive impact on the economic growth rate for the euro area.

Comparatively, while the negative effect of inflation is consistent with a large body of literature, the magnitude and significance in the AANZFTA region point toward the need for coordinated regional inflation-targeting policies and structural reforms. It also highlights the critical role of stable macroeconomic environments in fostering sustainable economic development.

6. Conclusion

This research investigates the macroeconomic determinants of economic growth in AANZFTA member countries from 1970 to 2022. The regression results show that GCF, EXP, and GFE play a significant role in GDP growth in these AANZFTA countries, whereas INF has a negative

effect on GDP. Statistical tests such as Hausman test verify the model's validity and yield significant insights into the connection between these economic indicators and GDP growth by using the random effects. The findings highlight the importance of these macroeconomic factors in influencing AANZFTA countries' economic progress, emphasizing their contributions to promoting sustainable growth. This study improves the understanding of AANZFTA countries' economic dynamics by providing empirical evidence on the connections between macroeconomic determinants and GDP, providing valuable insights for economic planning and policy development.

7. Implication of research

The results of this research carry significant theoretical and practical consequences. Theoretically, the findings correspond with the tenets of endogenous growth theories and the Solow-Swan growth model, validating the significance of these economic frameworks in elucidating GDP growth in AANZFTA countries. The research underscores the important roles of GCF, EXP, and GFE in economic growth, strengthening the claim that investment, trade, and national income are key factors in a country's economic development. Practically, the study offers helpful insight to policymakers, especially under the AANZFTA environment, where there are economic disparities among developing members such as Indonesia, Malaysia, Myanmar, Cambodia and advanced economies of Australia, Singapore and New Zealand. The findings, especially the positive and significant impact of exports (EXP) and government final expenditure (GFE) on GDP growth suggest that developing nations in the ASEAN pacific should enhance export potential and public spending efficiency to stimulate sustainable growth. Although gross capital formation (GCF) shows a positive but non-significant effect, efforts towards improving investment climates remain essential. The significant negative effect of inflation (INF) underscores the need for putting effective inflation control measures in place to safeguard macroeconomic stability. For investors, an understanding of the influence of these variables on GDP can inform capital allocation, pricing, and market development strategies.

In addition, some ASEAN member states like Cambodia, Myanmar, on average, have significantly lower economic welfare and institutional capacities than Australia, New Zealand, and Singapore. As such, policy actions must be appropriately adjusted to the specific structural and development circumstances of every nation. The universal application of strategies that have proven successful in high-income economies may not produce equivalent outcomes in lower-income ASEAN nations without sufficient institutional backing, financial resources, and social safety provisions. Consequently, future policies ought to adopt tailored approaches that take into account the varied economic circumstances present within the AANZFTA region.

Moreover, this research contributes to the global community by providing empirical evidence on how key macroeconomic factors such as exports, public expenditures, investment, and inflation impact economic growth in AANZFTA countries, offering valuable insights for policymakers and stakeholders aiming to design growth oriented and inflation-responsive economic policies in similar emerging and developed regional blocs.

8. Limitation of study and future research

The study is confined to AANZFTA member countries. This geographical location limits the applicability of the results, since economic indicators might yield different impacts in other nations due to their distinct economic frameworks, regulations, and market situations. Future studies should aim to widen the focus of research by incorporating countries from other continent like Africa or regional economic groups to facilitate comparative analysis and enhance the applicability of the findings. Secondly, the research depends on a narrow range of economic variables, which might not entirely reflect the intricacies of factors influencing economic growth. Although GCF, EXP, GFE, and INF are essential indicators, additional elements like imports, labor market trends, exchange rates, and technological progress could also significantly influence GDP growth. Future research ought to include a broader range of variables to offer a more complete perspective on the

factors driving economic growth. Furthermore, the research depends on secondary data sourced from the World Development Indicator (WDI), which, though dependable, could be prone to revisions and inconsistencies in reporting. Future studies may incorporate primary data, such as expert surveys and interviews with decision-makers, to offer further qualitative insights into the factors influencing economic growth. Finally, future studies might examine interaction effects among economic indicators and investigate how policy measures influence these connections. For instance, examining the impact of government regulations, and tax policies on GDP growth may offer more profound insights into the ways economic policies influence a country's economic paths.

Authors' contributions and responsibilities

Conceptualization, Data curation, Investigation, Writing- original draft, Formal analysis, Resources, Software, Visualization, Validation, Methodology, Writing-review & editing writing done by IA; Investigation, Supervision, Writing-review & editing, Project administration done by KAA.

Acknowledgement

I would like to extend my deepest gratitude to God Almighty for granting me, and KAA, the strength, wisdom, and capability to undertake this research project, and also for the insightful comments and suggestions made by KAA during the reviewing process. Even though this research received no funding, but we would also like to thank Njala University and Universitas Islam International Indonesia (UIII) for their unwavering support.

Competing interests

No potential conflict of interest was reported by the author

Data availability statement

All relevant data are available upon reasonable request.

ORCID

Ishiaka Adamu <https://orcid.org/0009-0003-0066-4608>

Kuforiji Abdulwasiiu Adeolai <https://orcid.org/0009-0002-2004-2518>

References

- Abdulkadr, A.A. *et al.* (2024) 'Analyzing the dynamics of monetary policy and economic growth in Ethiopia: an autoregressive distributed lag (ARDL) approach', *Discover Sustainability*, 5(1). Available at: <https://doi.org/10.1007/s43621-024-00271-w>.
- Acikgoz, B. and Cinar, S. (2017) 'Public spending and economic growth: An empirical analysis of developed countries', *Ekonomicky casopis*, 65(5), pp. 448–458.
- Affairs, I. (2015) 'The New Zealand – ASEAN trade partnership: 40 years of development', 40(4), pp. 28–31.
- Akobeng, E. (2017) 'Gross Capital Formation, Institutions and Poverty in Sub-Saharan Africa', *Journal of Economic Policy Reform*, 20(2), pp. 136–164. Available at: <https://doi.org/10.1080/17487870.2015.1128833>.
- Amjed, S. and Shah, I.A. (2021) 'Does financial system development, capital formation and economic growth induces trade diversification?', *Journal of Economics and Development*, 23(3), pp. 222–237. Available at: <https://doi.org/10.1108/JED-06-2020-0073>.
- Arapova, E. (2018) 'Determinants of household final consumption expenditures in asian countries: A panel model, 1991-2015', *Applied Econometrics and International Development*, 18(1), pp. 121–



140.

Armstrong, S. (2019) 'Role of Australia and New Zealand in Strengthened ASEAN Centrality and East Asia Collective Leadership', (May), pp. 103–106.

Aşici, A.A. (2013) 'Economic growth and its impact on environment: A panel data analysis', *Ecological Indicators*, 24(30238), pp. 324–333. Available at: <https://doi.org/10.1016/j.ecolind.2012.06.019>.

Azam, M. and Khan, S. (2022) 'Threshold effects in the relationship between inflation and economic growth: Further empirical evidence from the developed and developing world', *International Journal of Finance and Economics*, 27(4), pp. 4224–4243. Available at: <https://doi.org/10.1002/ijfe.2368>.

Aziz, R.N.A.R. and Amalina, A. (2017) 'Factor Affecting Gross Domestic Product (Gdp) Growth in Malaysia', *International Journal of Real Estate Studies*, 11(4), p. 2017. Available at: <http://www.utm.my/intrest/files/2017/09/07-Factor-Affecting-Gross-Domestic-Product-GDP-GROWTH-IN-MALAYSIA1.pdf>.

Bano, S., Takahashi, Y. and Scrimgeour, F. (2013) 'ASEAN-New Zealand trade relations and trade potential: Evidence and analysis', *Journal of Economic Integration*, 28(1), pp. 144–182. Available at: <https://doi.org/10.11130/jei.2013.28.1.144>.

Barker, A. (2017) 'Improving productivity in New Zealand's economy', (1419), pp. 77–122. Available at: https://doi.org/10.1787/eco_surveys-nzl-2017-6-en.

Beck, N. and Katz, J.N. (2011) 'Modeling dynamics in time-series-cross-section political economy data', *Annual Review of Political Science*, 14, pp. 331–352. Available at: <https://doi.org/10.1146/annurev-polisci-071510-103222>.

Berisha, E., Gupta, R. and Meszaros, J. (2020) 'The impact of macroeconomic factors on income inequality: Evidence from the BRICS', *Economic Modelling*, 91(April 2019), pp. 559–567. Available at: <https://doi.org/10.1016/j.econmod.2019.12.007>.

Beroud, M. (2024) 'Essays on Global Value Chains and Agri-food Systems Transformation'.

Bloom, D.E. et al. (2024) 'Health and economic growth: Reconciling the micro and macro evidence', *World Development*, 178(February), p. 106575. Available at: <https://doi.org/10.1016/j.worlddev.2024.106575>.

Brinkman, R.L. and Brinkman, J.E. (2001) 'The new growth theories: A cultural and social addendum', *International Journal of Social Economics*, 28, pp. 506–526. Available at: <https://doi.org/10.1108/03068290110360812>.

Carroll, N. (2012) 'Structural Change in the New Zealand Economy 1974-2012 Long-Term Fiscal External Panel', (July), pp. 1–32. Available at: <http://www.treasury.govt.nz/government/longterm/externalpanel/pdfs/ltfep-s1-04.pdf>.

Chigusiwa L, Bindu S., Mudavanhu V., Muchabaiwa, L., M.D. (2011) 'Export-Led Growth Hypothesis In Zimbabwe: Does Export Composition Matter? Chigusiwa L 1 ., Bindu S., Mudavanhu V., Muchabaiwa, L., Mazambani D Department of Economics, Bindura University of Science Education 2', *Int. J. Eco. Res.*, 2(August), pp. 111–129.

Chirwa, T.G. and Odhiambo, N.M. (2016) 'Macroeconomic determinants of economic growth: A review of international literature', *South East European Journal of Economics and Business*, 11(2), pp. 33–47. Available at: <https://doi.org/10.1515/jeb-2016-0009>.

Conway, P. and Orr, A. (2000) 'Articles The process of economic growth in New Zealand', *Reserve Bank of New Zealand Bulletin*, 63(1), pp. 4–20. Available at: http://www.rbnz.govt.nz/research_and_publications/articles/details.aspx?id=3671.

Coroneo, L., Giannone, D. and Modugno, M. (2016) 'Unspanned Macroeconomic Factors in the Yield Curve', *Journal of Business and Economic Statistics*, 34(3), pp. 472–485. Available at: <https://doi.org/10.1080/07350015.2015.1052456>.

Dalziel, P. (2016) 'Wellbeing Economics and Treasury ' s Perspective on New Zealand ' s Economic

Performance', (March).

Danlami, I.A., Hidthiir, M.H. and Hassan, S. (2020) 'Money Supply and Inflation in Nigeria: the Myth of the Monetarist Theory of Inflation', *Journal of Economics and Sustainability*, 2(Number 2), pp. 1–13. Available at: <https://doi.org/10.32890/jes2020.2.2.1>.

David, B. and Emmanuel, F. (2021) 'No Supply And Demand In Disaggregated Keynesian Economies With An Application To The Covid-19 Crisis', *Pharmacognosy Magazine*, 75(17), pp. 399–405.

Dyché, J. *et al.* (2011) *Business Intelligence Journal 2011, Business Intelligence Journal*.

Egbunike, C.F. and Okerekeoti, C.U. (2018) 'Macroeconomic factors, firm characteristics and financial performance: A study of selected quoted manufacturing firms in Nigeria', *Asian Journal of Accounting Research*, 3(2), pp. 142–168. Available at: <https://doi.org/10.1108/AJAR-09-2018-0029>.

Fatai, K., Oxley, L. and Scrimgeour, F.G. (2020) 'Modeling and Forecasting the Demand for Electricity in New Zealand: A Comparison of Alternative Approaches Author (s): Koli Fatai , Les Oxley and Frank G . Scrimgeour Published by: International Association for Energy Economics Stable URL : <https://www>', 24(1), pp. 75–102.

Ferreira, P.C. (2009) 'Trade in Intermediate Goods and Total Factor Productivity', (93).

Fosu, A.K. (1990) 'Exports and economic growth: The African case', *World Development*, 18(6), pp. 831–835. Available at: [https://doi.org/10.1016/0305-750X\(90\)90005-I](https://doi.org/10.1016/0305-750X(90)90005-I).

Furuoka, F. (2009) 'Exports and Economic Growth in ASEAN Countries: Evidence from Panel Data', *The Icfai University Journal of Applied Economics*, 8(1), pp. 9–16. Available at: https://www.researchgate.net/publication/46563575_Exports_and_Economic_Growth_in_ASEAN_Countries_Evidence_from_Panel_Data_Analysis.

Gabriele, A. (2006) 'Exports of Services, Exports of Goods, and Economic Growth in Developing Countries', *Journal of Economic Integration*, 21(2), pp. 294–317. Available at: <https://doi.org/10.11130/jei.2006.21.2.294>.

Galt, D. (2000) 'New Zealand ' s Economic Growth', (00).

Grossman, V., MacK, A. and Martinez-Garcia, E. (2014) 'A new database of global economic indicators', *Journal of Economic and Social Measurement*, 39(3), pp. 163–197. Available at: <https://doi.org/10.3233/JEM-140391>.

Hajamini, M. and Falahi, M.A. (2014) 'The nonlinear impact of government consumption expenditure on economic growth: Evidence from low and low-middle income countries', *Cogent Economics and Finance*, 2(1). Available at: <https://doi.org/10.1080/23322039.2014.948122>.

Hirschman, D. (2013) 'Review : Kuznets ' Lost Legacy . Review Of Fogel " Et Alii, Political Arithmetic " Reviewed Work (s): Political Arithmetic: Simon Kuznets and the Empirical Tradition in Economics by Robert W . Fogel , Enid M . Fogel , Mark Guglielmo and Nathaniel Grot', 21(3), pp. 127–133.

Hussin, F. and Saidin, N. (2012) 'Economic Growth in ASEAN-4 Countries: A Panel Data Analysis', *International Journal of Economics and Finance*, 4(9), pp. 119–129. Available at: <https://doi.org/10.5539/ijef.v4n9p119>.

Iqbal, Z. and Ghulam, M.Z. (2017) 'Pakistan Institute of Development Economics , Islamabad Macroeconomic Determinants of Economic Growth in Pakistan Author (s): Zafar Iqbal and Ghulam Mustafa Zahid Source : The Pakistan Development Review , Vol . 37 , No . 2 (Summer 1998) , pp . 125-148', *The Pakistan Development Review*, 37(2), pp. 125–148.

Islam, M.R. and Haque, M. (2018) 'The Success of Export and Its Impact to the GDP of Bangladesh', *Journal of Social Sciences and Humanities*, 1(1), pp. 63–67. Available at: <http://www.aascit.org/journal/archive2?journalId=931&paperId=6460>.

- Ismail, M. *et al.* (2024) 'Macroeconomic variables and initial public offerings in Sri Lanka: a principal component'. Available at: <https://doi.org/10.1108/LBSJMR-06-2023-0023>.
- Jananee Raguragavan (2004) 'Foreign Direct Investment and Its Impact on the New Zealand Economy: Cointegration and Error Correction Modelling Techniques'. Available at: https://mro.massey.ac.nz/bitstream/handle/10179/1644/02_whole.pdf?sequence=1&isAllowed=y.
- Jurgilewicz, O. and Poplavska, Z. (2019) 'Journal Of Security And Sustainability Issues ISSN 2029-7017 print / ISSN 2029-7025 online 2019 December Volume 9 Number 2', 9(2), pp. 199–212.
- Kanu, B., Ikechi, S. and Anayochukwu, B. (2019) 'Capital formation and economic growth in Nigeria strictly as per the compliance and regulations.', *ResearchGate*, (July), pp. 1–5.
- Khan, I. (2025) 'An empirical analysis of macroeconomic determinants of foreign fund inflows in India', *Journal of Financial Economic Policy* [Preprint]. Available at: <https://doi.org/10.1108/JFEP-10-2024-0304>.
- Khan, U. (2020) 'The Nexus between Urbanization, Gross Capital Formation and Economic Growth: A Study of Saudi Arabia*', *Journal of Asian Finance, Economics and Business*, 7(12), pp. 677–682. Available at: <https://doi.org/10.13106/JAFEB.2020.VOL7.NO12.677>.
- Kilic, C. (2015) 'Effects of globalization on economic growth: panel data analysis for developing countries', *Economic Insights – Trends and Challenges*, 4(1), pp. 1–11.
- Kryeziu, N. and Durguti, E. (2019) 'The impact of inflation on economic growth: The case of Eurozone', *Kryeziu and Durguti / International Journal of Finance & Banking Studies*, 8(1), pp. 1–09. Available at: www.ssbfn.net.com/ojshttps://doi.org/10.20525/ijfbs.v7i3.297.
- Malik, I.A. *et al.* (2014) 'Turn on the lights: Macroeconomic factors affecting renewable energy in Pakistan', *Renewable and Sustainable Energy Reviews*, 38(2014), pp. 277–284. Available at: <https://doi.org/10.1016/j.rser.2014.05.090>.
- Mantovani, A. (2015) 'the Impact of Asean - China Free Trade Agreement on European Economy', *Strategica: Local Versus Global*, (August), pp. 320–326.
- Maune, A. and Matanda, E. (2022) 'The Nexus between Gross Capital Formation and Economic Growth: Evidence from Zimbabwe', *The Journal of Accounting and Management*, 12(2), pp. 33–44.
- Mccombie, J.S.L. *et al.* (1997) 'On the Empirics of Balance-of-Payments-Constrained Growth On the empirics of', 19(3), pp. 345–375.
- Monteiro, G. and Turnovsky, S.J. (2008) 'The composition of productive government expenditure: Consequences for economic growth and welfare', *Indian Growth and Development Review*, 1(1), pp. 57–83. Available at: <https://doi.org/10.1108/17538250810868134>.
- Moore, P.D. (1975) 'Adapting to a chilly future', *Nature*, 253(5486), pp. 11–12. Available at: <https://doi.org/10.1038/253011b0>.
- Moses, C. *et al.* (2022) 'Government Performance and Economic Growth in Nigeria', 10(December), pp. 157–165.
- Nguyen, C.T. and Trinh, L.T. (2018) 'The impacts of public investment on private investment and economic growth: Evidence from Vietnam', *Journal of Asian Business and Economic Studies*, 25(1), pp. 15–32. Available at: <https://doi.org/10.1108/JABES-04-2018-0003>.
- Nguyen, D.T. (2015) 'The New Zealand – ASEAN trade partnership: 40 years of development', *New Zealand International Review*, 40(4), pp. 28–31.
- Ntamwiza, J.M.V. and Masengesho, F. (2022) 'Impact of Gross Capital Formation and Foreign Direct Investment on Economic Growth in Rwanda (1990-2017)', *Current Urban Studies*, 10(01), pp. 1–13. Available at: <https://doi.org/10.4236/cus.2022.101001>.
- Oluwatoyese, O.P., Applanaidu, S.D. a/p and Razak, N.A.A. (2016) 'Macroeconomic Factors and Agricultural Sector in Nigeria', *Procedia - Social and Behavioral Sciences*, 219, pp. 562–570. Available at: <https://doi.org/10.1016/j.sbspro.2016.05.035>.
- Onyinye, N., Idenyi, O. and Ifeyinwa, A. (2017) 'Effect of Capital Formation on Economic Growth in Nigeria', *Asian Journal of Economics, Business and Accounting*, 5(1), pp. 1–16. Available at:

<https://doi.org/10.9734/ajebe/2017/36075>.

Oyebowale, A.Y. and Algarhi, A.S. (2020) 'Macroeconomic determinants of economic growth in Africa', *International Review of Applied Economics*, 34(6), pp. 839–857. Available at: <https://doi.org/10.1080/02692171.2020.1792422>.

Özyilmaz, A. (2022) 'Relationship Between Inflation and Economic Growth in EU Countries', *Journal of Economic Policy Researches / İktisat Politikası Araştırmaları Dergisi*, 9(2), pp. 425–438. Available at: <https://doi.org/10.26650/jep1132170>.

Pan, A.W. *et al.* (2016) 'Endogenous growth theory and regional performance Published by: University of California Press Communist and Post-Communist Studies Endogenous growth theory and regional performance: The moderating effects of special economic zones', 49(2), pp. 113–122.

Paper, W. (2024) 'Cost-Push And Conflict Inflation In Theory And Practice - With A Discussion', (96).

Pasara, M.T. and Garidzirai, R. (2020) 'Causality effects among gross capital formation, unemployment and economic growth in South Africa', *Economies*, 8(2). Available at: <https://doi.org/10.3390/ECONOMIES8020026>.

Phuc, N. Van and Duc, V.H. (2021) 'Macroeconomics Determinants of Exchange Rate Pass-Through: New Evidence from the Asia-Pacific Region', *Emerging Markets Finance and Trade*, 57(1), pp. 5–20. Available at: <https://doi.org/10.1080/1540496X.2018.1534682>.

Poku, K., Opoku, E. and Agyeiwaa Ennin, P. (2022) 'The influence of government expenditure on economic growth in Ghana: An Ardl approach', *Cogent Economics and Finance*, 10(1). Available at: <https://doi.org/10.1080/23322039.2022.2160036>.

Pradhan, R.P. *et al.* (2016) 'Insurance penetration and economic growth nexus: Cross-country evidence from ASEAN', *Research in International Business and Finance*, 36, pp. 447–458. Available at: <https://doi.org/10.1016/j.ribaf.2015.09.036>.

Ranawana, C.M., Unit, E.I. and Lanka, S. (no date) 'Factors Affecting Gross Capital Formation: Before, during, and after the Civil War in Sri Lanka', pp. 30–83.

Reddy, T.K. and Ramaiah, T.S. (2020) 'The impact of gross capital formation on economic growth: Evidence from India', *Indian Journal of Economics and Business*, 19(1), pp. 57–69.

Romer, P. (1997) 'The origins of endogenous growth', *A Macroeconomics Reader*, 8(1), pp. 3–22. Available at: <https://doi.org/10.4324/9780203443965.ch26>.

Rugina, A.N. (2001) 'A monetary and economic dialogue with Lord Keynes', *International Journal of Social Economics*, 28(November), pp. 177–222. Available at: <https://doi.org/10.1108/EUM0000000004530>.

Saragih, J., Wardati, J. and Pratama, I. (2020) 'Trade openness, government development expenditures, gross capital formation and economic growth: An ASEAN case', *International Journal of Innovation, Creativity and Change*, 12(10), pp. 366–383.

Sawalha, Nabeel N., Elian, Mohammed I. & Suliman, A.H. (2021) 'Foreign Capital Inflows And Economic Growth In Developed And Emerging Economies: A Comparative Analysis Author (s): Nabeel N. Sawalha, Mohammad I. Elian and Adil H. Suliman Source: The Journal of Developing Areas, Vol. 50, No. 1 (Winter 2016)', *The Journal of Developing Areas*, 50(1), pp. 237–256.

Siddique, A.M.A.B., Sen, R. and Srivastava, S. (2016) 'Australia-Thailand Trade: An Analysis Of Competitiveness And Effects Of The', *The Journal Of Developing Areas*, 50(5), Pp. 103–118.

Siddiqui, K. (2018) 'David Ricardo's Comparative Advantage and Developing Countries: Myth and Reality Kalim Siddiqui 1 In International Critical Thought, Vol 8, issue 3.', *International Critical Thought*, 8(3), pp. 426–452.

Sidek, N.Z.M. and Asutay, M. (2020) 'Do government expenditures and institutions drive growth? Evidence from developed and developing economies', *Studies in Economics and Finance*, 38(2), pp.

400–440. Available at: <https://doi.org/10.1108/SEF-10-2019-0412>.

Slepov, V.A. *et al.* (2017) 'The country's economic growth models and the potential for budgetary, monetary and private financing of gross domestic product growth', *European Research Studies Journal*, 20(4), pp. 488–500. Available at: <https://doi.org/10.35808/ersj/849>.

Smith Adam (1776) 'Adam Smith Excerpt Student copy _1_', *The Wealth of Nation*, (1776), pp. 436–437.

Söhnke, M. *et al.* (2013) 'Munich Personal RePEc Archive Macroeconomic Risks and Characteristic-Based Factor Models Macroeconomic Risks and Characteristic-Based Factor Models', (47344).

Solihatun Mardiah and M. Irwan (2024) 'Analysis of the Effect of Infrastructure Development on Economic Growth in Mataram City', *Socio-Economic and Humanistic Aspects for Township and Industry*, 2(2), pp. 290–298. Available at: <https://doi.org/10.59535/sehati.v2i2.278>.

Sucharita, S. and Sethi, N. (2011) 'Fiscal discipline in India', *Romanian Journal of Fiscal Policy (RJFP)*, 2(1), pp. 1–23.

Sugiarto, S. and Wibowo, W. (2020) 'Determinants of Regional Household Final Consumption Expenditure in Indonesia', *Jejak*, 13(2), pp. 332–344. Available at: <https://doi.org/10.15294/jejak.v13i2.25736>.

Suhadak, S. and Agustin, H. (2019) 'The Influence of ASEAN Macroeconomic and Economic Activity on the Performance of Indonesian Composite Index', 93(AICoBPA 2018), pp. 221–228.

Tarawalie, A.B. and Kargbo, N. (2020) 'Efficacy of Fiscal and Monetary Policy in Sierra Leone: an Ardl Bound Testing Approach', *International Journal of Economics and Financial Issues*, 10(3), pp. 217–224. Available at: <https://doi.org/10.32479/ijefi.9407>.

Thaddeus, K.J. *et al.* (2024) 'Selected macroeconomic determinants and economic growth in Cameroon (1970–2018) "dead or alive" an ARDL approach', *Journal of Business and Socio-economic Development*, 4(1), pp. 1–19. Available at: <https://doi.org/10.1108/jbsed-05-2021-0061>.

Thi, T. and Thanh, K. (2013) 'Inflation Targeting: Can it be adopted in Japan and Nigeria?'

Totonchi, J. (2011) 'Macroeconomic Theories of Inflation', *International Conference on Economics and Finance Research*, (July), pp. 459–462. Available at: <https://www.researchgate.net/publication/265893432>.

Turato, E.R. (2005) 'Qualitative and quantitative methods in health: Definitions, differences and research subjects', *Revista de Saude Publica*, 39(3), pp. 507–514. Available at: <https://doi.org/10.1590/s0034-89102005000300025>.

Ullah, B.-Z. *et al.* (2012) 'Effects of exports instability on economic growth in SAARC region countries', *Pakistan Journal of Commerce and Social Sciences*, 6(1), pp. 97–120. Available at: <https://hdl.handle.net/10419/188044>.

Uyar, A., Kuzey, C. and Kilic Karamahmutoglu, M. (2022) 'Macroeconomic factors, R&D expenditure and research productivity in economics and finance', *Managerial Finance*, 48(5), pp. 733–759. Available at: <https://doi.org/10.1108/MF-12-2021-0602>.

Vitalis, V. (2015) 'Regional Economic Integration and Multilateralism: The Case of the ASEAN-Australia-New Zealand FTA and the Malaysia-New Zealand FTA', *SSRN Electronic Journal* [Preprint]. Available at: <https://doi.org/10.2139/ssrn.2597516>.

Wang, J. *et al.* (2024) 'Rainfall's impact on agricultural production and government poverty reduction efficiency in China', *Scientific Reports*, 14(1), pp. 1–21. Available at: <https://doi.org/10.1038/s41598-024-59282-2>.

Wanniarachchi, S. (2020) 'External Debt and Growth: In search of Ceiling for South Asian Economies', *SSRN Electronic Journal*, pp. 1–76. Available at: <https://doi.org/10.2139/ssrn.3657638>.

WDI (2023) *World Bank DataBank: World Development Indicators*, *World Bank DataBank: World Development Indicators*. Available at: <https://databank.worldbank.org/reports.aspx?source=2&country=ARE> (Accessed: 4 June 2025).

Worthington, A. and Higgs, H. (2013) 'Macro drivers of Australian housing affordability, 1985-2010:

- An autoregressive distributed lag approach', *Studies in Economics and Finance*, 30(4), pp. 347–369. Available at: <https://doi.org/10.1108/SEF-07-2012-0078>.
- Wynne, M.A. and Sigalla, F.D. (2009) 'The Consumer Price Index - Economic Review, Second Quarter 1994 - Dallas Fed', *Federal Reserve Bank of Dallas Economic Review*, (February 1994), pp. 1–22.
- Yonar, H. and İyit, N. (2018) 'Modeling The Causality Relationships Between Gdp / Gni and Electricity Consumption According to Income Levels of Countries By Generalized Estimating
- Zallé, O. (2022) 'Journal of Economic Integration Investment in ESG Projects and', *Journal of Economic Integration*, 37(1), pp. 54–92.