

Democracy And Growth: Economic Determinants And The Moderating Effect Of Democratic Accountability On Economic Growth

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Abstract

This study investigates the economic determinants of growth and the moderating role of democratic accountability in five ASEAN countries (Indonesia, Malaysia, Thailand, the Philippines, and Vietnam) from 2000 to 2022. Using a structural equation reduced form model, it analyzes the direct and indirect effects of trade openness, foreign direct investment (FDI), and government expenditure on education and health, with mediation by the agriculture sector and moderation by freedom of speech and accountability. Results show trade openness enhances growth directly but has negative indirect effects via agriculture. FDI has no significant impact. Education expenditure strongly promotes growth directly and indirectly, while health spending has only a direct effect. Democratic accountability strengthens the growth effect of education spending but weakens that of health. These findings highlight complex links among policy, governance, and sectoral change.

Keywords: Economic growth, Trade openness, FDI, Government expenditure, Democratic accountability, ASEAN, Agriculture sector, Mediation, Moderation.

INTRODUCTION

Southeast Asia is one of the major centers of global economic growth. The Association of Southeast Asian Nations (ASEAN), established on August 8, 1967, aims to promote political, economic, and security cooperation in the Southeast Asian region, while also maintaining regional peace and stability. Accordingly, member states have committed to strengthening collaboration across various sectors, particularly in economic development and social progress. (Glas, 2021; Rüland, 2021; Bhasin and Kumar, 2022; Caballero-Anthony and Emmers, 2022). ASEAN, initially established to maintain regional stability, has evolved into an influential economic bloc. Indonesia, Malaysia, Thailand, the Philippines, and Vietnam serve as key member states that significantly contribute to the region's economic development (Ha *et al.*, 2020; Bhowmik, Zhu and Gao, 2021; Nguyen and Bui, 2021; Rüland, 2021; Baek, 2023; Triani *et al.*, 2023). Indonesia, Malaysia, Thailand, the Philippines, and Vietnam are now recognized as middle-income countries. During the period from 2000 to 2022, the economies of these five nations experienced various fluctuations. While rapid economic growth characterized the early years of the decade, several significant challenges also emerged, including the global financial crisis and the COVID-19 pandemic. Despite their high growth potential, all five countries have shown a declining trend in economic growth over the past two decades (Asian Development Bank, 2021; World Bank Group, 2023). This poses a risk of economic stagnation which, if left unaddressed, may lead Indonesia, Malaysia, Thailand, the Philippines, and Vietnam into the Middle-Income Trap (MIT), a condition in which countries are unable to transition into high-income economies (Felipe, 2012; Glawe and Wagner, 2016; Ke, 2024).

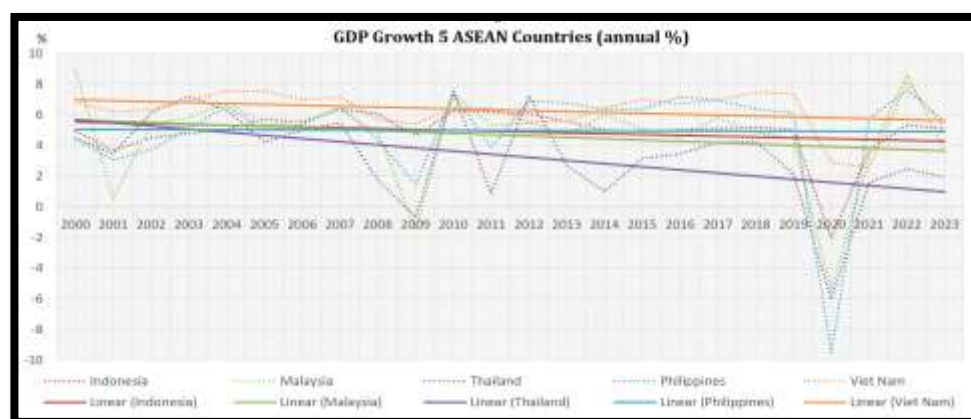


Figure 1. GDP Growth of Five ASEAN Countries (2000–2023, Source: World Bank)

Countries caught in the Middle-Income Trap find themselves in a dilemma: on the one hand, wages have become too high to remain competitive in traditional manufacturing industries; on the other hand, these countries are not yet adequately prepared to transition to a knowledge- and technology-driven service-based economy like those of advanced nations. The danger of the MIT lies in prolonged economic stagnation, which can hinder the achievement of higher living standards and exacerbate social inequality (Glawe and Wagner, 2016; Vivarelli, 2016; Lin and Wang, 2020; Wu and Fang, 2024). Various efforts have been undertaken by these countries to stimulate economic growth, including the implementation of policies that leverage free market mechanisms and the strengthening of investment in human capital, particularly through government spending in the education and health sectors (Asirvatham *et al.*, 2017; Myint *et al.*, 2019; Maneejuk and Yamaka, 2021; Rahman, Vu and Nghiem, 2022). However, despite the implementation of these policies, their economic growth continues to face serious challenges. The trend of economic growth in these five countries has shown a consistent decline, particularly over the past two decades. Observing the downward trend in economic growth despite the adoption of various economic policies has led to a growing awareness that non-economic factors may be contributing to this decline. This underscores the need for deeper reforms, particularly in the area of governance. Indonesia, for instance, continues to struggle with corruption, bureaucratic inefficiencies, failed decentralization efforts, and weak environmental governance (Mietzner, 2020; Shoesmith, Franklin and Hidayat, 2020; Turner, Prasajo and Sumarwono, 2022; Tomsa and Bax, 2023). Malaysia has been entangled in major corruption scandals, marked by the centralization of power and deepening ethnic polarization (Ravallion, 2020; Mohamad Jamil, 2021; Siddiquee and Zafarullah, 2022; Shukri, 2023). Thailand grapples with political instability, persistent corruption, a widening urban–rural divide, and the enduring influence of the military in government affairs (Marks and Lebel, 2016; Phatharathananunth, 2016; Chiengkul, 2019; Nikomborirak, 2020; Sudsawasd *et al.*, 2022). The Philippines faces widespread corruption and nepotism, sluggish and inefficient bureaucracy, weak rule of law, persistent poverty, and ongoing armed conflicts in certain regions (Arugay and Slater, 2019; Garrido, 2020; Rodan, 2021; Silva *et al.*, 2021; Arugay and Baquisal, 2023). Vietnam struggles with corruption within the Communist Party, authoritarian governance, a lack of transparency in economic policymaking, and weak environmental governance (Anh, Minh and Tran-Nam, 2016; Markussen and Ngo, 2019; Sinha *et al.*, 2019; Khuu, Jones and Ekins, 2021; Taniguchi, 2022). Each country faces its own specific challenges; however, a common thread emerges—the urgent need to improve accountability, public participation, tolerance, rule of law, and transparency, all of which are integral components of the broader governance discourse. According to the World Bank, governance is measured using Kaufmann’s Worldwide Governance Indicators (WGI), which provide a comprehensive framework for evaluating six key dimensions of governance across countries (Kaufmann, Kraay and Zoido-lobatón, 1999; Kaufmann and Kraay, 2002, 2008; Kaufmann *et al.*, 2005, 2007). It consists of six indicators: (1) voice and accountability, which reflects the extent to which citizens are able to participate in selecting their government as well as enjoy freedom of expression, freedom of association, and a free media; (2) political stability and absence of violence/terrorism; (3) government effectiveness; (4) regulatory quality; (5) rule of law; and (6) control of corruption. (Magnusson and Tarverdi, 2020; Bunyavejchewin and Sirichuanjun, 2021; Detotto, Giannoni and Goavec,

2021; Akpan-Obong *et al.*, 2023). Governance plays a crucial role in economic growth. Effective governance creates an enabling environment for investment, enhances the efficiency of public service delivery, promotes transparency and accountability, and strengthens institutions, all of which contribute to sustainable and inclusive economic development (Hadj Fraj, Hamdaoui and Maktouf, 2018; Briguglio, Vella and Moncada, 2019; Liu *et al.*, 2020; Omri and Ben Mabrouk, 2020; Mahmood, Tanveer and Furqan, 2021). Each governance indicator influences the economy in different ways. One component of governance that has received particular attention among the five ASEAN countries concerns the quality of democracy and civil liberties. Democracy and freedom of expression encompass various aspects of the political process, civil liberties, and political rights. These indicators assess the extent to which citizens are able to participate in the selection of their government. This category also includes measures of media independence, which play a crucial role in monitoring those in power and ensuring accountability for their actions. Within the market mechanism, democracy and freedom of expression enhance accountability, increase investor confidence, and reduce corruption, although unstable democratic transitions may hinder investment. Political stability creates a favorable environment for business, while political instability can generate uncertainty and capital flight (Bernhard *et al.*, 2015; Uddin, Ali and Masih, 2017; Cox and Weingast, 2018; Colagrossi, Rossignoli and Maggioni, 2020; Mohammadi, Boccia and Tohidi, 2023). As depicted in Figure 2, there exists a marked disparity in governance performance between high-income countries and ASEAN nations. Countries such as the United States, the United Kingdom, Germany, France, and the Netherlands, alongside Singapore, Brunei, and Malaysia, demonstrate governance indicator values averaging one or higher. In contrast, the remaining ASEAN countries fall below this threshold, with some registering negative values. This suggests that governance quality is generally higher in high-income nations.

Economic growth is commonly measured through annual changes in gross domestic product (GDP). Since government expenditure constitutes a component of GDP, variations in public spending inherently influence growth. The effectiveness of such expenditure, particularly in key sectors like education and health, is moderated by governance. Thus, it is essential to examine how governance conditions affect the impact of public spending on economic performance.

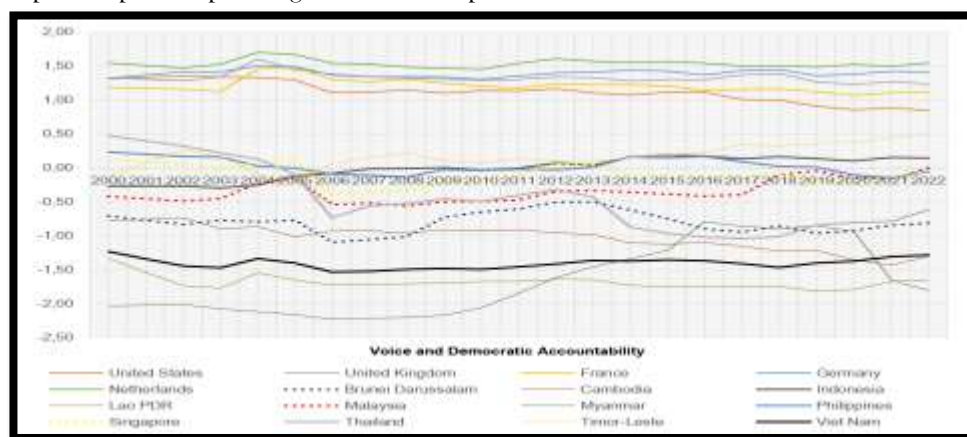


Figure 2. Governance Indicator Chart: Voice and Democratic Accountability

Conceptualizing governance as a moderating variable rather than an independent determinant provides a more nuanced analytical framework. In this capacity, governance modifies the strength or direction of the relationship between economic variables—such as public expenditure—and growth outcomes. It serves either to amplify or mitigate the effectiveness of fiscal interventions, depending on the quality and integrity of institutional frameworks. This approach is particularly relevant to development economics, offering critical insights into how governance shapes the efficacy of policy measures, especially in middle-income ASEAN countries at risk of stagnation. Numerous studies have underscored the significance of governance in shaping economic outcomes, emphasizing the foundational role of institutions and democratic practices. Robust institutions—marked by strong property rights and limitations on executive power—encourage innovation and inclusive growth. In contrast, weak or extractive institutions often perpetuate underdevelopment and

inequality. Therefore, understanding the mediating role of governance is vital for designing effective growth strategies, particularly in regions undergoing structural economic transitions. Democracy has a significantly positive impact on per capita Gross Domestic Product (GDP) in the long run, with estimates indicating an increase of approximately 20–25% within 25 years after democratic transition. Democracy fosters greater investment in education, health, and physical capital, while also contributing to the mitigation of social instability. Although non-democratic regimes may occasionally implement economic reforms, evidence suggests that democracies are more likely to pursue and sustain such reforms over time (Acemoglu and Robinson, 2010; Acemoglu *et al.*, 2019). This study underscores the importance of non-economic factors—particularly governance—in shaping economic outcomes. While governance has been widely acknowledged as a determinant of development, existing literature has not adequately explored its moderating role in the relationship between government expenditure and economic growth, especially within the ASEAN context. This gap highlights the need for more focused empirical investigation. The primary research question addressed in this study is: How do democratic accountability and freedom of expression moderate the effect of government expenditure on economic growth in five ASEAN countries—Indonesia, Malaysia, Thailand, the Philippines, and Vietnam? The central hypothesis posits that these aspects of governance enhance the positive impact of public spending on economic performance. The analysis draws on panel data from 2000 to 2022, integrating governance indicators as moderating variables in the empirical model.

Theoretically, this research contributes to the development economics literature by emphasizing the moderating influence of democratic accountability and freedom of expression on fiscal effectiveness. The findings are expected to inform governance-related policy reforms aimed at promoting sustainable economic growth in the ASEAN region.

LITERATURE REVIEW

Theoretical Literature

In mainstream economic analysis, particularly within the neoclassical tradition, four principal constraints receive significant attention: individual preferences, technological opportunities, physical and human resources, and market opportunities. Within such analytical frameworks, the institutional context is almost always disregarded, and in many instances, entirely omitted. As a consequence, when institutional frameworks are addressed as they are, the analysis of institutional constraints is often relegated to non-economists—such as political scientists, legal scholars, sociologists, and anthropologists. Most economists tend to avoid such analyses. The discourse on governance within economics can be understood through the lens of institutional economics. Institutional economics refers to an approach that emphasizes the significance of institutions—such as norms, laws, and social structures—in shaping economic behavior and outcomes. This perspective considers the interrelations between economic, social, and political factors in a holistic manner. Therefore, it is essential to account for the broader social system in economic analysis (Myrdal, 1978). The term “institution” in this study is used interchangeably with the concepts of “institutional framework” or “pranata.” Douglass C. North defines institutions as the humanly devised constraints that structure political, economic, and social interaction. These constraints consist of informal limitations—such as sanctions, taboos, customs, traditions, and codes of conduct—as well as formal rules, including constitutions, laws, and property rights. Throughout history, institutions have been established with the aim of creating order and reducing uncertainty in exchanges. Alongside conventional economic constraints, institutions shape the set of available choices, thereby determining transaction and production costs, profitability, and the viability of engaging in economic activity (North, 1991). The application of New Institutional Economics can be understood from two main dimensions: first, transaction and information costs, and second, collective action. The “transaction cost” and “information cost” approaches integrate the concepts of bounded rationality and opportunistic behavior. In addition, the property rights or legal rights approach—closely linked to the law and economics literature—emphasizes that the existence or recognition of property rights can reduce conflict and facilitate cooperation, thereby lowering transaction costs (Nabli and Nugent, 1989). In the author’s view, both of these concepts are embodied within the broader framework of governance. This raises the question: how and why does governance matter?

The collapse of communism in the early 1990s was interpreted as the triumph of political democracy and market-based economics. This signified an increased role for the private sector and civil society in state affairs. Consequently, a major shift occurred in the management of the public sector. Traditional models of public administration—rigid, hierarchical, and bureaucratic—have been increasingly replaced by more flexible, market-oriented public management systems. These reforms involve the adoption of private sector management principles and systems within the public sector in an effort to improve bureaucratic performance. Economists, political scientists, and international institutions—particularly the United Nations, the World Bank, and the International Monetary Fund—have since introduced the concept of governance into the economic literature. The United Nations Development Programme (UNDP) defines governance as the exercise of political, economic, and administrative authority to manage a nation's affairs. Good governance is characterized by participation, transparency, accountability, effectiveness, equity, and adherence to the rule of law. Governance encompasses the mechanisms, processes, and institutions through which citizens and groups articulate their interests, exercise their legal rights, fulfill their obligations, and mediate their differences (UNDP, 1997). Accordingly, nine characteristics of governance have been established to accommodate and be applicable across the three pillars (political, economic, and administrative), namely: (i) participation; (ii) rule of law; (iii) transparency; (iv) responsiveness; (v) consensus orientation; (vi) equity; (vii) effectiveness and efficiency; (viii) accountability; and (ix) strategic vision. The World Bank has been grappling with these issues since the early stages of its engagement with development. The relatively strong growth experienced by many developing countries between 1965 and 1980 concealed serious governance-related problems that affected the efficiency of resource use and hindered their ability to adjust to changing external environments (World Bank, 1992). When economic growth slowed dramatically in the 1980s, developing countries were severely affected by the deterioration of their terms of trade. The scarcity that emerged during this period revealed fundamental weaknesses in governance systems. Investment loans failed to achieve their intended outcomes in the absence of an appropriate governance framework. Governance and Development provides a specific definition aligned with the World Bank's objectives: "the manner in which power is exercised in the management of a country's economic and social resources for development" (World Bank, 1992, 1994). The concept of governance adopted in this study refers to this definition within the context of economic development. This raises an important question: how can governance be incorporated into empirical economic research? Nearly all economic studies that include governance as a variable rely on the Worldwide Governance Indicators (WGI) developed by the World Bank. The principal figure behind the formulation of these indicators is Daniel Kaufmann. Kaufmann and colleagues demonstrated how a simple variant of an unobserved components model can be used to combine information from multiple sources into aggregate indicators of governance. A key advantage of this methodology is its ability to assess the precision of both individual governance data sources and the resulting aggregate governance indicators. Governance, as measured through these indicators, has become a critical determinant of development outcomes (Kaufmann, Kraay and Zoido-lobatón, 1999; Kaufmann, Kraay and Zoido, 2005). The aggregate governance indicators are constructed based on a broad definition of governance, which is subsequently categorized into three clusters or dimensions. These three aspects consist of the political cluster, the economic cluster, and the institutional cluster. Together, these clusters serve as the foundation for the construction of the governance index (Kaufmann and Kraay, 2002; Kaufmann, 2012). The political cluster refers to the process by which those in authority are selected and replaced. One of the key indicators within the political cluster is *voice and democratic accountability*, which is the focus of this study. Voice and democratic accountability encompasses a range of indicators that reflect various aspects of the political process, civil liberties, and political rights. These indicators measure the extent to which citizens of a country are able to participate in selecting their government. This category also includes indicators that assess the independence of the media, which plays a vital role in monitoring those in power and ensuring accountability for their actions. Voice and democratic accountability influence economic performance at both the microeconomic and macroeconomic levels. Freedom of expression fosters an environment conducive to innovation, where individuals feel free to share ideas and start new ventures without fear of reprisal from authorities. This environment enhances productivity at the firm level through healthy competition and broader dissemination of knowledge (Kreiterling, 2023; Agazu and Kero, 2024;

Lodhi *et al.*, 2024). Freedom of expression enables a more open social dialogue between workers, employers, and the government, which can lead to more equitable labor policies. It also supports greater labor mobility, as the freedom to voice dissatisfaction allows workers to seek better opportunities, ultimately enhancing the efficiency of labor allocation (Cirillo and Molero Zayas, 2019; Chiles *et al.*, 2021; Donovan and Schoellman, 2023). At the macroeconomic level, democracy and freedom of expression ensure that economic policies are formulated transparently and involve public participation. This reduces the likelihood of corruption and the implementation of inefficient policies (Edwards, 2020; Ahuja, Naseemullah and Ostermann, 2021; Porumbescu, Meijer and Grimmelikhuijsen, 2022; Power *et al.*, 2024). More transparent fiscal and monetary policies enhance market confidence and economic stability, which are essential for long-term economic growth (Marin-Rodríguez, Gonzalez-Ruiz and Botero, 2023; Koirala *et al.*, 2024). In an environment of freedom of expression and high-quality democracy, citizens are able to elect leaders who align with their expectations, and societal groups can more effectively voice their needs. As a result, social policies such as subsidies, social assistance, or welfare programs can be designed more effectively. Well-crafted social policies can enhance domestic consumption and purchasing power, thereby serving as a driver of economic growth (Gerber, 2004; Hemel, 2021; Yang *et al.*, 2023).

Empirical Literature

Recent studies have begun to explore how governance indicators influence economic growth. The central argument is that high-quality governance can enhance economic performance. However, empirical research has yielded mixed and even ambiguous findings. Yerrabati conducted a meta-analysis to examine the impact of economic governance on foreign direct investment (FDI) and economic growth in South and East Asia. The findings indicate that good governance—particularly political stability, government effectiveness, and regulatory quality—plays a crucial role in attracting FDI. FDI, in turn, was found to have a positive effect on economic growth in the region. Although corruption was shown to have a negative impact, governance overall plays a significant role in enhancing both FDI and economic performance. The meta-analysis also revealed that the relationship between governance and FDI varies across countries, depending on their specific policies and conditions. This thesis underscores the importance of strong governance in creating a conducive investment environment. These conclusions carry important policy implications for countries in the region seeking to accelerate economic growth through foreign investment (Yerrabati, 2014). Lahouij investigated the relationship between governance and economic growth in developing countries using panel data from 2002 to 2014. The findings indicate that good governance contributes positively to economic growth, regardless of a country's income level. Indicators such as freedom of expression and democratic accountability, political stability, and the rule of law are strongly positively correlated with economic growth in low-income countries. Effective governance and control of corruption also have significant impacts in lower-middle- and upper-middle-income countries. However, the study acknowledges that the results may vary when countries with differing economic conditions are included in the sample. In conclusion, effective governance is essential for sustaining long-term economic growth. Governance-related policies are recommended to support stable economic development in developing countries (Lahouij, 2017). Abdelbary and Benhin explored the role of governance and capital in driving economic growth in Arab countries. Their findings indicate that human capital and investment contribute positively to economic growth, while regulatory quality exerts a negative influence. Governance was also identified as a key factor in determining overall economic performance, although it exhibited a negative effect in the context of Arab countries. The study highlights the importance of governance and human capital in addressing economic and political instability, as evidenced by the events of the “Arab Spring.” The conclusion drawn is that improvements in governance are essential for achieving more stable and sustained growth in the region (Abdelbary and Benhin, 2019). Zhou *et al.* utilized panel data from 31 developed countries to examine the impact of governance on economic growth between 2002 and 2018. The findings indicate that indicators such as rule of law, control of corruption, and voice and accountability have a direct positive effect on economic growth. In contrast, government effectiveness, political stability, and regulatory quality exhibit indirect negative effects on growth. The study also demonstrates that the quality of governance is crucial for enhancing the economic performance of developed countries. The policy implications suggest the need to focus on

improving governance as a means to promote long-term economic growth (Zhuo *et al.*, 2021). Khyareh and Amini examined the impact of governance quality on entrepreneurship and economic growth across 64 countries during the period 2010–2018, using data from the Global Entrepreneurship Monitor (GEM). The findings reveal that opportunity-driven entrepreneurship is positively correlated with economic growth in innovation-driven economies, but this relationship does not hold in factor-driven and efficiency-driven economies. Good governance significantly contributes to entrepreneurial activity, which in turn supports economic growth. The study emphasizes the critical role of governance quality in facilitating the relationship between entrepreneurship and economic performance. This article offers practical insights into how improving governance can promote entrepreneurship and foster economic growth (Khyareh and Amini, 2021). An evaluation of previous research reveals that many studies have examined the individual effects of governance and government spending on economic growth. However, few have explored how governance moderates this relationship. The perspectives of scholars such as North, Acemoglu, and Rodrik emphasize the importance of institutions for economic growth, yet they do not explicitly address the moderating role of governance in the context of public spending. Similarly, the extensive literature on government expenditure—represented by works of Barro, Romer, Lucas, and others—treats public spending as an independent factor influencing growth, without considering how governance may alter its effectiveness.

This study views good governance as a catalyst for economic growth. The impact of government spending on growth is contingent upon the quality of governance. Good governance ensures better resource allocation, reduces corruption, and supports the optimal implementation of policies. Empirical studies indicate that government spending is more effective in promoting economic growth in countries with strong governance. Conversely, in countries with weak governance, public spending is often misused, thereby diminishing its impact on growth (Connolly and Li, 2016; Laboure and Taugourdeau, 2018; Lien, 2018; Onifade *et al.*, 2019; Jeong, Lee and Kang, 2020; Albassam, 2022). Existing studies emphasize the importance of robust governance in ensuring the effective allocation of public resources. While much of the literature has examined governance and government spending as independent determinants of economic growth, the moderating role of governance in this relationship remains insufficiently explored. Few studies have empirically analyzed how governance quality influences the effectiveness of public expenditure in fostering growth, revealing a significant gap in the current understanding. This study seeks to fill that gap by investigating how governance—particularly its quality—modifies the relationship between government spending and economic performance. By doing so, it aims to offer empirical insights into whether strong governance amplifies or constrains the growth-enhancing effects of increased public spending, thereby contributing to a more comprehensive understanding of governance's role in development economics.

METHODOLOGY

This section presents and discusses the methodology employed in this paper. It begins by outlining the data sources, research variables, and the operational definitions of the data used. This subsection also elaborates on the variables and the manner in which they are incorporated into the specified model. The subsequent subsection addresses the research hypotheses.

Source of Data

This study utilizes secondary data in the form of statistical figures. The data set is structured as panel data, combining cross-sectional observations from five ASEAN countries with a time-series dimension spanning the period from 2000 to 2022. The primary data sources for the variables in the model are derived from the World Bank's World Development Indicators. The following are the research variables along with their operational definitions.

Economic Growth (Y4): Economic growth is measured in constant 2015 US dollars. Gross Domestic Product (GDP) is used as a proxy for economic growth and is transformed into its natural logarithm (LGDP) for modeling purposes.

Agriculture, Forestry, and Fishing Sector (Y1): the value added by the agriculture, forestry, and fishing sector, in accordance with ISIC divisions 1–3. This includes forestry, hunting, and fishing, as well as crop cultivation and livestock production. Value added represents the net output of a sector after summing all outputs and subtracting intermediate inputs. It is calculated without deductions for depreciation of

fabricated assets or depletion and degradation of natural resources. The origin of value added is classified according to the International Standard Industrial Classification (ISIC), Revision 4. *VAB countries, gross value added at factor cost is used as the denominator. The data are measured in constant 2015 US dollars.*

Trade Openness (To): Trade openness is defined as the sum of exports and imports of goods and services, measured as a percentage of gross domestic product. It reflects the degree to which a country is integrated into international trade, with data presented as a percentage of GDP.

Investment: This is proxied by foreign direct investment (FDI), which refers to investment by a firm or individual from one country into business interests located in another country. FDI is calculated based on net inflows intended to acquire long-term management interest (10 percent or more of voting stock) in an enterprise operating in a different economy. It comprises equity capital, reinvestment of earnings, other long-term capital, and short-term capital as recorded in the balance of payments. This series reports total net FDI. Under the Balance of Payments Manual version 6 (BPM6), the financial account balance is calculated as the change in assets minus the change in liabilities. Net FDI outflows are considered assets, while net FDI inflows are liabilities. The data are expressed as a percentage of GDP.

Government Expenditure on Education (Ged): Refers to public spending on education, measured as a percentage of total government expenditure.

Government Expenditure on Health (Ghe): Refers to public spending on health, also measured as a percentage of total government expenditure.

Voice and Accountability (Gov1): This indicator captures perceptions regarding the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. The estimates provide a country score on this aggregate indicator, presented in standard normal units, ranging from approximately -2.5 to 2.5.

Model Specification

This model is grounded in growth theories and incorporates the critique by Todaro and Smith regarding the two conditions required to achieve optimal productivity (growth), namely the necessary condition and the sufficient condition. In this study, the necessary condition is represented by economic factors, while the sufficient condition is Voice and Accountability (Gov1). The selected economic factors used as control variables include trade openness (To), foreign direct investment (FDI), government expenditure on education (Ged), and government expenditure on health (Ghe). Accordingly, the model is specified as follows:

$$Y_4 = f(To, Fdi, Ged, Ghe, Gov_1, Y_1) \quad \dots(1) \text{ economic growth}$$

The inclusion of the Agriculture, Forestry, and Fishing Sector variable (Y1) in this study primarily aims to examine indirect relationships, serving as a mediating factor. These five ASEAN countries are endowed with an abundance of natural resources, making the contribution of this sector significant in enhancing their economic development. The functional determinants of the Agriculture, Forestry, and Fishing sector are similar to those of economic growth, as it inherently reflects the interactions between aggregate demand and aggregate supply activities.

$$Y_1 = f(To, Fdi, Ged, Ghe, Gov_1) \quad \dots(2) \text{ Agriculture, Forestry, and Fishing sector}$$

To obtain the reduced-form equation, Equation (2) is substituted into Equation (1).

$$Y_4 = \beta_0 + \beta_1 To + \beta_2 Fdi + \beta_3 Ged + \beta_4 Ghe + \beta_5 Gov_1 + \beta_6 Ged * Gov_1 + \beta_7 Ghe * Gov_1 + \beta_8 Y_1 + \varepsilon_0 \quad \dots(4.1)$$

$$Y_1 = a_1 + b_1 To + c_1 Fdi + d_1 Ged + e_1 Ghe + f_1 Gov_1 + g_1 Ged * Gov_1 + h_1 Ghe * Gov_1 + \varepsilon_1$$

$$Y_4 = \beta_0 + \beta_1 To + \beta_2 Fdi + \beta_3 Ged + \beta_4 Ghe + \beta_5 Gov_1 + \beta_6 Ged * Gov_1 + \beta_7 Ghe * Gov_1 + \beta_8 (a_m + b_m To + c_m Fdi + d_m Ged + e_m Ghe + f_m Gov_1 + g_m Ged * Gov_1 + h_m Ghe * Gov_1 + \varepsilon_1) + \varepsilon_0$$

$$Y_4 = \beta_0 + \beta_8 a_m + To(\beta_1 + \beta_8 b_m) + Fdi(\beta_2 + \beta_8 c_m) + Ged(\beta_3 + \beta_8 d_m) + Ghe(\beta_4 + \beta_8 e_m) + Gov_1(\beta_5 + \beta_8 f_m) + Ged * Gov_1(\beta_6 + \beta_8 g_m) + Ghe * Gov_1(\beta_7 + \beta_8 h_m) + \beta_8 \varepsilon_m + \varepsilon_0 \quad \dots(4.2)$$

Since:

$$\pi_0 = \beta_0 + \beta_8 a_m; \pi_1 = \beta_1 + \beta_8 b_m; \pi_2 = \beta_2 + \beta_8 c_m; \pi_3 = \beta_3 + \beta_8 d_m; \pi_4 = \beta_4 + \beta_8 e_m; \pi_5 = \beta_5 + \beta_8 f_m; \pi_6 = \beta_6 + \beta_8 g_m; \pi_7 = \beta_7 + \beta_8 h_m; \pi_8 = \varepsilon_0 + \beta_8 \varepsilon_m$$

Thus, the reduced-form equation is derived as follows:

$$Y_4 = \pi_0 + \pi_1 To + \pi_2 Fdi + \pi_3 Ged + \pi_4 Ghe + \pi_5 Gov_1 + \pi_6 Ged * Gov_1 + \pi_7 Ghe * Gov_1 + \pi_8 \dots \dots \dots (3)$$

Where:

$\pi_1, \pi_2, \pi_3, \pi_4, \pi_5, \pi_6, \pi_7$ Reduced-form regression coefficients

π_0 is a constant *reduce-form* and π_8 error term *reduce-form*.

Equation (3) represents a simplified form (reduced-form) as it no longer contains endogenous variables, specifically the sectoral economic variable, i.e., the Agriculture, Forestry, and Fishing sector (Y1). The terms β_0 and a_m are intercept constants representing the vertical-axis intercepts in a graphical representation. All coefficient values other than the intercepts are referred to as path coefficients. Path coefficients are standardized regression coefficients calculated through the construction of structural equations that reflect hypothesized relationships. Meanwhile, ε_0 and ε_m denote error terms. By using the R-Studio software, the data processing procedures can be efficiently performed.

Hypotheses

Trade openness has a positive effect on economic growth, both directly and indirectly through the Agriculture, Forestry, and Fishing sector.

Foreign direct investment (FDI) has a positive effect on economic growth, both directly and indirectly through the Agriculture, Forestry, and Fishing sector.

Government expenditure on education has a positive effect on economic growth, both directly and indirectly through the Agriculture, Forestry, and Fishing sector.

Government expenditure on health has a positive effect on economic growth, both directly and indirectly through the Agriculture, Forestry, and Fishing sector.

Governance (Voice and Democratic Accountability) strengthens the effect of government expenditure on education on economic growth, both directly and indirectly through the Agriculture, Forestry, and Fishing sector.

Governance (Voice and Democratic Accountability) strengthens the effect of government expenditure on health on economic growth, both directly and indirectly through the Agriculture, Forestry, and Fishing sector.

RESULTS AND DISCUSSION

This section begins with descriptive statistics that provide insights into the patterns of the variables under investigation and also includes data analysis based on the structural equation-reduced form approach. The data processing was conducted using the R-Studio software.

Descriptive Statistics

Table 1. Descriptive Statistics

Variabel	Max	Min	Average	Stadev
Y4	1.122.270.779.815,14	93.525.828.108,84	358.483.686.807,44	227.697.251.447,91
Y1	142.368.696.083,58	16.401.016.670,36	44.123.104.177,17	31.549.068.917,58
To	220,406789	32,972175	110,000370	47,126910
Fdi	9,663039	- 2,757440	2,743762	1,803800
Ged	25,9036007	11,185507	17,272918	3,025580
Ghe	13,5840540	3,592417	8,132654	2,661353

Gov1	0,467802942	- 1,538451	- 0,440070	0,575484
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Source: Data processed using Microsoft Excel.

Economic performance, measured by GDP (Y4), reveals that the five ASEAN countries had an average GDP of US\$358 billion (in constant 2015 dollars) from 2000 to 2022. The highest GDP was recorded by Indonesia in 2022 at US\$1.12 trillion, while the lowest was Vietnam in 2000 at US\$93.52 billion, indicating substantial variation in economic output across the region. The large standard deviation of US\$227 billion underscores significant disparities in economic scale among these countries. The Value Added of the Agriculture, Forestry, and Fisheries Sector (Y1) averaged US\$44.123 billion, ranging from a minimum of US\$16.401 billion (Malaysia, 2001) to a maximum of US\$142.368 billion (Indonesia, 2002). These figures highlight the continued relevance of the agrarian sector in the ASEAN region, particularly in countries such as Indonesia, Thailand, and Vietnam. A standard deviation of US\$31.549 billion reflects the uneven dependence on this sector across the five countries. Notably, Vietnam stands out for the sector's relatively high contribution to its national GDP, underscoring its strategic economic role. Government expenditure on education (Ged) averaged 17.272% of total government spending across the sample. The minimum was 11.1855% (Thailand, 2022), and the maximum was 25.903% (Malaysia, 2002), indicating varied national priorities regarding education investment. Malaysia led with the highest average education spending (20.287%), followed by Thailand (17.394%) and Vietnam (17.077%). These figures suggest a stronger emphasis on human capital development in these three countries. In contrast, the remaining ASEAN countries in the study appear to allocate a relatively smaller share of public spending to education, possibly prioritizing other sectors in their fiscal strategies. Government expenditure on health (Ghe) averaged 8.132% of total government spending across the five ASEAN countries, with a minimum of 3.592% (Indonesia, 2000) and a maximum of 13.584% (Thailand, 2016). Compared to education, the health sector generally receives a smaller share of public expenditure. Over the past two decades, Thailand recorded the highest average health spending (11.937%), followed by Vietnam (8.809%), indicating stronger commitments to public health in these countries. The Voice and Accountability indicator (Gov1), used as a proxy for democracy and civil liberties, had an average value of -0.44. Scores ranged from -1.538 (Vietnam, 2006) to 0.467 (Thailand, 2000), on a scale from -2.5 (weakest) to +2.5 (strongest). The consistently negative values indicate substantial governance challenges in the region, particularly regarding freedom of expression and democratic accountability. These findings suggest that democratic institutions remain underdeveloped in many ASEAN countries. While some improvements are evident, persistent structural constraints necessitate focused institutional reforms, particularly given the critical role of democratic governance in supporting effective market-based economic systems.

Panel-Data Estimation

Table 2. Model Estimation

Model Test User Model	Kriteria Pengujian Model	Hasil Olah Data
Metode Absolut fit Indices (Model Test User Model)		
Test Statistik (χ^2) Chi Square (CMIN/DF)	Mengikuti uji statistik terkait syarat signifikansi. Semakin kecil nilainya semakin baik.	0.000
Root Mean Square Error of Approximation (RSMEA)	Sangat Baik $\leq 0,05$ Baik $\leq 0,08$	0.000
90 Percent Confidence Interval - Lower	$<0,05$	0.000
90 Percent Confidence Interval - Upper	$<0,05$	0.000
Goodness-of-Fit Index (GFI)	$\geq 0,9$	1.000

Adjusted Goodness of Fit Index (AGFI)	≥0,9	1.000
Root Mean Square Residual (RMR)	<0,08	0.000
Standardized Root Mean Square Residual (SRMR)	<0,08	0.000
Incremental Fit Indices (Model Test Baseline Model)		
P-value	<0.05	0.000
User Model versus Baseline Model		
Comparative Fit Index (CFI)	≥0,95	1.000
Tucker-Lewis Index (TLI)	≥0,95	1.000

Source: Results of data processing using R-Studio.

R-Square: Estimate

Y1 0.623

Y4 0.919

The R-squared value indicates that the model is capable of explaining the variation in the dependent variable. The dependent variable—value added in the agriculture, forestry, and fisheries sector (Y1)—can be explained by the independent variables in the model by 62.3%. The remaining 37.7% is accounted for by other factors outside the model. In contrast, economic growth (Y4) can be explained by the model by 91.9%, indicating that the model performs very well in explaining this variable.

Tabel 2 Estimation Results

Variabel	Connection	Estimate	Z-value	P(> z)
Trade Openness (To)	Direct	0.001	2.023	0.043**
	Indirect	-0.009	-9.759	0.000*
Foreign Direct Investment (Fdi)	Direct	-0.010	-0.932	0.351
	Indirect	0.005	0.253	0.800
Government Expenditure in Education (Ged)	Direct	0.049	5.609	0.000*
	Indirect	0.073	4.996	0.000*
Government Expenditure on Health (Ghe)	Direct	0.030	3.349	0.001*
	Indirect	0.006	0.379	0.705
Voice and Democratic Accountability (Gov1)	Direct	-1.072	-3.170	0.002*
	Indirect	-2.682	4.729	0.000*
Moderation Effect of Gov1 on Ged (Gov1*Ged)	Direct	0.101	6.333	0.000*
	Indirect	0.146	5.592	0.000*
Moderation Effect of Gov1 on Ghe (Gov1*Ghe)	Direct	-0.039	-2.221	0.026**
	Indirect	0.010	0.331	0.741

Source: Results of data processing from R-Studio.

The significance levels at 1% (*), 5% (**), and 10% (***)

Hypothesis Testing

Trade Oppennes

Direct Effect

Trade openness has a significant and direct positive effect on economic growth. The estimated coefficient is 0.001 with a probability value of 0.043, which is significant at the 5% level. This implies that a 1% increase

in trade openness (as a percentage of GDP) will lead to a 0.1% increase in economic growth in the five ASEAN countries. This finding supports the research hypothesis.

Indirect Effect through the Agriculture, Forestry, and Fishing sector

Trade openness has a significant negative effect on economic growth through the value added of the agriculture, forestry, and fisheries sector. The estimated coefficient is -0.009 with a probability value of 0.000, which is significant at the 1% level. This indicates that a 1% increase in trade openness (as a percentage of GDP) reduces economic growth through the value added of the agriculture, forestry, and fisheries sector in the five ASEAN countries by 0.9%. This finding does not support the research hypothesis, as the relationship, although statistically significant, is negative in direction.

Foreign Direct Investment

Direct Effect

Foreign Direct Investment (FDI) does not have a significant direct effect on economic growth. The probability value of 0.351 indicates that this variable is not significant at any conventional significance level. This finding does not support the research hypothesis.

Indirect Effect through the Agriculture, Forestry, and Fishing sector

Foreign Direct Investment (FDI) does not have a significant effect on economic growth through the value added of the agriculture, forestry, and fisheries sector at any significance level. The probability value of 0.800 indicates that this variable is not significant across all conventional levels. This finding does not support the research hypothesis.

Government Expenditure on Education

Direct Effect

Government expenditure on education has a significant and direct positive effect on economic growth. The estimated coefficient is 0.049 with a probability value of 0.000, which is significant at the 1% level. This indicates that a 1% increase in government expenditure on education (as a share of total government expenditure) will increase economic growth in the five ASEAN countries by 4.9%. This finding supports the research hypothesis.

Indirect Effect through the Agriculture, Forestry, and Fishing sector

Government expenditure on education has a significant positive effect on economic growth through the agriculture, forestry, and fisheries sector. The estimated coefficient is 0.073 with a probability value of 0.000, which is significant at the 1% level. This indicates that a 1% increase in government expenditure on education (as a share of total government expenditure) will enhance economic growth through the value added of the agriculture, forestry, and fisheries sector in the five ASEAN countries by 7.3%. This finding supports the research hypothesis.

Government Expenditure on Health

Direct Effect

Government expenditure on health has a significant and direct positive effect on economic growth. The estimated coefficient is 0.030 with a probability value of 0.001, which is significant at the 1% level. This indicates that a 1% increase in government expenditure on health (as a share of total government expenditure) will increase economic growth in the five ASEAN countries by 3%. This finding supports the research hypothesis.

Indirect Effect through the Agriculture, Forestry, and Fishing sector

Government expenditure on health does not have a significant effect on economic growth through the value added of the agriculture, forestry, and fisheries sector. The estimated coefficient is 0.006 with a probability value of 0.705, indicating that although the relationship is positive, it is not significant at any conventional significance level. This finding rejects the research hypothesis in this model.

Moderation Democratic Accountability to Government Expenditure on Education

Moderation of the Direct Effect

Voice and Accountability significantly moderates the effect of government expenditure on education on economic growth in the five ASEAN countries. The interaction term yields a coefficient of 0.101 with a p-value of 0.000, indicating significance at the 1% level. This implies that a 1% increase in the interaction between Voice and Accountability and education spending is associated with a 10.1% increase in economic

growth. In comparison, the direct effect of education spending without moderation is only 4.9%. This indicates a quasi-moderation effect, as Voice and Accountability functions both as a moderator and an independent variable. The result confirms the study's hypothesis regarding the strengthening role of democratic accountability in enhancing fiscal effectiveness.

Moderation of the Indirect Effect through the Agriculture, Forestry, and Fishing sector

Freedom of Speech and Accountability significantly enhance the impact of Government Expenditure on Education on Economic Growth through the value added of the agriculture, fisheries, and forestry sectors in the five ASEAN countries. The estimated interaction coefficient is 0.146 with a p-value of 0.000, indicating strong statistical significance at the 1% level. This suggests that a 1% increase in the interaction term corresponds to a 14.6% increase in economic growth via this sectoral channel. In contrast, the direct effect of education expenditure on economic growth through the same sectors, without moderation, is only 7.3%. This demonstrates that Freedom of Speech and Accountability amplify the effectiveness of public education spending in promoting sector-based economic development. The moderation is classified as quasi-moderation, as the variable serves both as a moderator and an independent predictor. These results confirm the study's hypothesis and highlight the critical role of democratic accountability in enhancing the efficiency of fiscal policy aimed at stimulating sectoral and overall economic growth.

Moderation Democratic Accountability to Government Expenditure on Health

Moderation of the Direct Effect

Freedom of Speech and Democratic Accountability weaken the impact of Government Expenditure on Health on Economic Growth in the five ASEAN countries. The interaction term has a coefficient of -0.039 with a p-value of 0.026, indicating statistical significance at the 5% level. This implies that a 1% increase in the interaction between Freedom of Speech and Health Spending reduces economic growth by 3.9%. In comparison, the direct effect of health expenditure without moderation is a positive 3.0%. This negative moderating effect suggests that greater democratic accountability may diminish the growth-enhancing impact of health spending. The moderation is classified as quasi-moderation, as the variable functions both as a moderator and an independent predictor.

Moderation of the Indirect Effect through the Agriculture, Forestry, and Fishing sector

Freedom of Speech and Democratic Accountability do not significantly moderate the effect of Government Expenditure on Health on Economic Growth through the agriculture, fisheries, and forestry sectors. The probability value of 0.741 indicates that this variable has no effect at any level of statistical significance. This type of moderation is classified as predictor moderation, as Freedom of Speech and Accountability function solely as a predictor (independent variable) within the constructed relationship model.

Analysis

Trade Oppennes

Direct Effect

There are at least three reasons that support this result, namely broader market access, the inflow of knowledge and technology, and increased efficiency and specialization. Trade openness provides access to wider markets, enabling the five ASEAN countries to reach larger global markets. Integration into the global market expands the demand for goods and services, thereby stimulating exports and driving economic growth. Trade openness is often associated with the inflow of knowledge, technology transfer, enhancement of labor skills, and the adoption of improved managerial practices, all of which accelerate innovation and, in turn, boost productivity. Free trade also promotes efficiency and specialization, allowing the five ASEAN countries to focus on sectors where they have a comparative advantage, enhance production efficiency, and improve global competitiveness. It is also important to consider that within the context of trade openness, factors such as competitiveness, market penetration, and exchange rates have a significant influence on exports in promoting economic growth. (Lestari, Abdireviane and Paddu, 2022; Reviane, Paddu and Tajibu, 2022). The economic theory that supports trade openness or free trade as a driver of economic advancement can be traced back to the ideas of Adam Smith and David Ricardo. According to their perspectives, countries should specialize in the production of goods in which they have a comparative advantage—that is, goods they can produce at relatively lower costs compared to other countries. Free trade enables such specialization, leading to a more efficient allocation of resources, increased productivity, and ultimately, the promotion of

economic growth. (Smith, 1776; Ricardo, 1817). Trade openness can enhance economic growth through various mechanisms, including specialization, resource efficiency, economies of scale, technology transfer, and productivity improvement. The theories of Ricardo and Heckscher-Ohlin primarily focus on the allocation of resources (Ohlin, 1978; Samuelson, 1981; Leamer, 1995; Heckscher, 2007). Meanwhile, the theories of Romer, Lucas, and Krugman emphasize the role of innovation and economies of scale in driving economic growth through trade (Krugman, 1978, 1990, 1991, 2008; Romer, 1990, 1986, 1987; Lucas, 1988, 1990; Krugman, Obstfeld and Melitz, 2017, 2018). In addition, there are also theories based on the Trade Boom Hypothesis, which posits that countries more open to trade tend to grow faster than those that adopt protectionist policies. Globalization and trade openness facilitate higher economic growth by increasing foreign direct investment (FDI) and enabling the transfer of technology (Sachs and Warner, 1995b, 1995a, 1995c). Openness to trade is one of the key drivers stimulating economic growth. Empirical findings indicating that trade openness has a significant and positive impact on growth are consistent with the research conducted by Romain Wacziarg and Karen Horn Welch. Their analysis shows that during the period 1950–1998, countries that liberalized their trade regimes experienced average annual growth rates approximately 1.5 percentage points higher than in the period prior to liberalization (Wacziarg and Welch, 2008). Another study conducted by Rabail Amna Intisar et al. analyzed the impact of trade openness and human capital on economic growth in 19 Asian countries over the period 1985–2017. The study selected two geographically distributed regions—South Asia and West Asia—based on differences in per capita GDP. The findings indicate that trade openness and human capital are both significantly and positively associated with economic growth in South and West Asia. The study suggests that, to achieve faster long-term growth, countries should enhance trade openness by reducing tariffs and non-tariff trade barriers (Amna Intisar et al., 2020). A different set of findings emerges regarding the impact of trade openness on sustainable development in Saudi Arabia. Using the autoregressive distributed lag (ARDL) cointegration framework and annual data from 1971 to 2016, the study reveals a long-run relationship between trade openness and two key indicators of sustainable development: economic growth and environmental quality. In the short run, trade openness does not affect either economic growth or environmental quality. However, in the long run, trade openness has a significantly negative impact on both indicators. Overall, the study suggests that trade openness may have contributed to the degradation of sustainable development in Saudi Arabia over the past fourteen years (Belloumi and Alshehry, 2020).

Indirect Effect through the Agriculture, Forestry, and Fishing sector

Although trade openness positively influences overall economic growth, its indirect effect on the agriculture, fisheries, and forestry sectors is negative. This outcome may stem from import-substituting deindustrialization, structural economic transformation, and unequal trade relations. Local agricultural products often cannot compete with cheaper, higher-quality imports, reducing value added in these sectors. Trade liberalization also shifts labor toward manufacturing and services, diminishing agriculture's contribution to growth. Moreover, unequal trade terms—such as developed countries' subsidies, tariffs, and strict standards—hinder market access for developing countries. These challenges limit the sectors' competitiveness and overall value added. These findings contrast with the study conducted by Md Ali Emam et al., which investigated whether fish exports drive long-term growth in the agricultural sector (“fish export-led growth”) using panel data from eight South and Southeast Asian countries over the period 2000–2018. Employing an autoregressive distributed lag (ARDL) model, the study found that fish exports have a significantly positive long-run effect on agricultural sector growth. These results are applicable to both low-income and upper-middle-income countries included in the analysis. Thus, the study provides supporting evidence for fish export-led growth, offering policy guidance for promoting sustainable agricultural development to alleviate poverty and improve living standards (Emam, Leibrecht and Chen, 2021).

Foreign Direct Investment

Direct Effect

The negative impact of foreign direct investment (FDI) on growth appears only at the sample level and is not statistically significant. This finding indicates that FDI inflows do not necessarily contribute directly to economic growth. In the context of a structural-equation reduced-form model, the insignificance of the direct relationship between FDI and economic growth suggests the need for further analysis of potential

mediation or moderation effects. Several previous studies have shown that FDI may contribute to economic growth through improvements in human capital, technology transfer, or the strengthening of domestic sector capacities (Su and Liu, 2016; Zhu and Ye, 2018; Osei and Kim, 2020). Therefore, further analysis may be conducted by incorporating mediating variables such as human capital, financial sector development, or technological advancement as either mediators or moderators (depending on the research objective) to examine whether the relationship is conditional. The impact of foreign direct investment (FDI) on economic growth remains a complex issue for both researchers and policymakers. Theoretically, it has been posited that FDI promotes growth. However, the existing empirical literature has produced inconclusive results, leaving researchers and policymakers puzzled, as these studies often fail to establish a robust link between the two variables. W.N.W. Azman-Saini, Ahmad Zubaidi Baharumshah, and Siong Hook Law investigated the systemic relationship between economic freedom, foreign direct investment (FDI), and economic growth using a panel dataset comprising 85 countries. The empirical results, based on estimations using the Generalized Method of Moments (GMM), reveal that FDI per se does not have a direct (positive) effect on output growth. Instead, the effect of FDI depends on the level of economic freedom in the host country. This implies that countries that promote greater freedom in economic activities tend to reap significant benefits from the presence of multinational corporations (MNCs) (Azman-Saini, Baharumshah and Law, 2010). The insignificant impact of FDI on economic growth is also observed in a study by Rafael Alvarado, María Iñiguez, and Pablo Ponce, who examined the effects of foreign direct investment on economic growth in 19 Latin American countries. Using panel data econometrics, they found strong empirical evidence indicating that the overall impact of FDI on economic growth is statistically insignificant in aggregate form. However, the results vary when accounting for the level of development achieved by countries in the region. FDI has a positive and significant effect on output in high-income countries, whereas in upper-middle-income countries, the impact is uneven and statistically insignificant. Lastly, in lower-middle-income countries, the effect is negative and statistically significant. These findings suggest that FDI is not an adequate mechanism to accelerate economic growth in Latin America, except in high-income countries (Alvarado, Iñiguez and Ponce, 2017).

Indirect Effect through the Agriculture, Forestry, and Fishing sector

Theoretically, FDI can promote economic growth by increasing investment in the agricultural sector and its subsectors. However, within the context of this study, the inflow of investment into the sector does not appear to be strong enough to generate a statistically significant effect on economic growth. Although the relationship is statistically insignificant, FDI still exhibits a positive direction of influence on economic growth through the value added by this sector at the sample level. This implies that, despite the estimation results not statistically supporting the hypothesis, there is an indication that increased FDI in the sector may still provide long-term economic benefits for ASEAN countries. This warrants further in-depth research.

Government Expenditure on Education

Direct Effect

From a demand-side perspective, educational expenditure promotes economic growth by increasing demand for educational goods and services. Budget allocations for teacher salaries and educational aid enhance household purchasing power, driving domestic consumption. Government investment also creates employment in education and related sectors, such as construction, logistics, printing, and information technology. This strengthens aggregate demand and supports short-term growth. Simultaneously, educational spending improves labor quality by enhancing workforce skills and competitiveness, fostering technology adoption, and boosting productivity. In ASEAN, it supports knowledge-based sectors, reduces skill gaps, and promotes inclusivity. Thus, it contributes to both immediate economic expansion and long-term structural development. The findings of this study support Keynesian theory, which posits that government spending stimulates short-term economic growth, and affirm endogenous growth theory, which emphasizes that human capital is a key driver of long-term economic growth. The structural model indicates that investment in education generates a significant multiplier effect on the economy. Education exerts both direct and indirect impacts on national output. Educated workers directly increase national income by enhancing their marginal productivity. Indirectly, they contribute to higher national income by improving the marginal productivity of physical capital and other workers. In highly educated countries, the spillover

effects on other workers are minimal; however, in countries with lower education levels, these spillover effects appear to be substantially greater. Across all countries, the positive effect of rising human capital on the productivity of physical capital is essential to counteract the diminishing returns of physical capital investment, thereby making further investment in physical capital financially viable within the growth process (Breton, 2013). ASEAN countries that consistently increase their education budgets tend to experience more stable and inclusive economic growth. Policies that allocate educational spending efficiently—particularly those aimed at improving access and quality—will yield more optimal economic benefits. Seon-ho Jeong, Youngjae Lee, and Sungjin Kang investigated the impact of the composition of government expenditure on GDP per capita using data from the Classification of the Functions of Government (COFOG). Government spending on education was found to have a significant impact on GDP per capita in the short term. Meanwhile, R&D expenditure on education as well as on recreation, culture, and religion was found to exert a significant effect on long-term GDP. Developed countries have successfully enhanced economic growth by reallocating their overall spending portfolios toward education and by increasing their R&D expenditures in the areas of education, recreation, culture, and religion (Jeong, Lee and Kang, 2020).

Indirect Effect through the Agriculture, Forestry, and Fishing sector

These findings reaffirm that educational expenditure improves literacy and skills, stimulating demand for technology-based training in agriculture, fisheries, and forestry. Increased interest in vocational education within the agro-maritime sector contributes to a more innovation-adaptive workforce, supporting the modernization of primary sectors. Educational subsidies and social assistance enhance household purchasing power, boosting consumption of local agro-forestry products. This also promotes greater nutritional and environmental awareness, increasing demand for organic and sustainably sourced products. Hence, educational spending supports the development of higher-quality domestic demand in these sectors. Moreover, government investment in education plays a key role in building human capital, which enhances labor productivity, particularly in labor-intensive sectors such as agriculture, fisheries, and forestry. In the ASEAN context, increased educational spending has cultivated a more skilled and innovative workforce, capable of managing natural resources more effectively. From a macroeconomic perspective, such investments generate positive spillovers by improving productivity in primary sectors. Educated workers are more likely to adopt modern technologies, resulting in higher yields and reduced inefficiencies. In fisheries and forestry, education promotes sustainable practices, contributing to long-term productivity. A more educated workforce is also better equipped to respond to global market changes, thereby improving the international competitiveness of these sectors. Several policy implications can be considered by the governments of the five ASEAN countries. First, increased education budgets must be accompanied by reforms in the education system to ensure that graduates possess skills aligned with the demands of key economic sectors. Second, greater synergy between education policies and sectoral policies in agriculture, fisheries, and forestry is necessary to maximize the benefits of education in enhancing productivity in these areas. Third, investment in vocational education and technical training should be expanded to equip the workforce in agriculture, fisheries, and forestry with the skills required to compete effectively in global markets. An increase in government expenditure on education is implicitly associated with higher value-added in the agriculture, fisheries, and forestry sectors, as suggested by the findings of Yaprak Kurtosal et al. Their study indicates that the need for high-quality education policies, along with the enhancement of collaboration, entrepreneurship, and innovative learning methods, is critical for these sectors. The study highlights the urgent need for changes in the pace and approach of education and training (ET) across the entire value chain—from farm to fork. These findings emphasize that transforming the ET system to support the transition toward achieving the Green Deal, the Farm to Fork (FtF) strategy, and the new Common Agricultural Policy (CAP) objectives requires the development of policies that promote student-centered and interdisciplinary education. Such policies should also ensure flexibility and be supported by non-formal and lifelong learning approaches (Kurtosal et al., 2024).

Government Expenditure on Health

Direct Effect

These findings reinforce the argument that investment in the health sector not only improves public health outcomes but also contributes significantly to overall economic growth. Theoretically, the relationship between health expenditure and economic growth can be explained through improvements in human capital quality. Government investment in the health sector leads to increased life expectancy, reduced mortality rates, and enhanced labor productivity. Improved health conditions are critical for promoting long-term economic growth. A healthier population tends to exhibit higher labor force participation rates and greater productivity (Ehrlich and Yin, 2013; Zhan et al., 2022). This aligns with endogenous growth theory, which emphasizes the importance of human capital accumulation in supporting sustained economic growth. Christopher P. P. Shafuda and Utpal Kumar De investigated the impact of government spending on human capital on key human development indicators—such as healthcare outcomes, educational attainment, and increases in national income—in Namibia using time series data from 1980 to 2015. Their vector autoregression analysis revealed a significant long-term effect of healthcare and education spending on GDP growth through the enhancement of human resources. Consequently, their findings support the continuation of expansionary government expenditure policies as a means to achieve more rapid economic growth in Namibia (Shafuda and De, 2020). Viju Raghupathi and Wullianallur Raghupathi explored the relationship between public health expenditure and economic performance across the United States. Healthcare spending can lead to the provision of better health opportunities, which in turn can strengthen human capital and enhance productivity, thereby contributing to economic performance. The overall findings strongly indicate a positive correlation between healthcare expenditure and economic indicators such as income, GDP, and labor productivity. The study demonstrates that increased healthcare spending is positively associated with improved economic performance. The policy implications suggest that a healthy citizenry indeed contributes to a stronger overall economy. Therefore, strategic investment in various aspects of healthcare is expected to enhance income, GDP, and productivity, while also reducing poverty (Raghupathi and Raghupathi, 2020).

Indirect Effect through the Agriculture, Forestry, and Fishing sector

The insignificance of this effect may be attributed to several factors, one of which is the reliance of the agriculture, forestry, and fisheries sectors on variables other than health expenditure. These sectors are more heavily influenced by investments in infrastructure, agricultural technology, and trade policy, rather than by government spending on health. Although good health can enhance labor productivity, its impact in this model does not appear to be strong enough to be statistically significant. It is possible that the effect of health improvements on productivity in these sectors takes a longer time to materialize. Therefore, further research is needed to explore alternative mechanisms that may explain this relationship.

Moderation Democratic Accountability to Government Expenditure on Education**Moderation of the Direct Effect**

These findings suggest that governance promoting freedom of expression and accountable democracy significantly enhances the positive effects of government investment in education. Civil liberties and accountability improve public spending efficiency and accelerate the transformation of education expenditure into higher productivity and economic growth. Policies that incorporate public participation and reflect societal aspirations amplify the impact of education spending, more than doubling its growth effect compared to contexts lacking such governance quality. The policy implication is that ASEAN countries should prioritize quality democratic governance and civil liberties in the education policy cycle—particularly in planning, formulation, and oversight—to fully realize the economic benefits of education investment. Quality democracy involves citizen participation in government selection, protection of free expression and association, and the presence of a free press. These elements foster transparency and accountability in education budget management. Public involvement ensures education spending aligns with actual societal needs, while freedom of expression and independent media enable effective oversight of education policy implementation. Collectively, these governance factors build public trust and make education investment more responsive and impactful in strengthening human capital and boosting productivity, thereby contributing more effectively to sustained economic growth.

Civil liberties and democratic accountability serve as an ecosystem for channeling public aspirations, enabling public oversight, and functioning as an early warning device in the event of fraud and rent-seeking behavior at any stage of the public budgeting cycle. This environment contributes to greater transparency and accountability in education spending, which in turn enhances the quality of governance in the education sector. This study offers an important contribution to the development economics literature and provides evidence-based recommendations for policymakers in the five ASEAN countries and other developing nations. Previous studies have predominantly treated governance indicators as independent variables rather than as moderating variables. The following is an overview of studies related to the influence of voice and accountability on public financial performance and economic growth. Kamil Omoteso and Hakeem Ishola Mobolaji investigated the impact of governance indices—particularly control of corruption—on economic growth in several Sub-Saharan African (SSA) countries. Their study aimed to assess whether governance reforms (especially those related to corruption control) or simultaneous policy reforms could affect economic growth. Governance indicators were sourced from the PRS Group and the Worldwide Governance Indicators for the period 2002–2009, while real per capita gross domestic product (GDP) growth data were obtained from the World Bank database, covering 47 SSA countries. The study found that political stability and regulatory quality had a significant positive impact on economic growth. Conversely, government effectiveness was found to have a negative effect on growth in the region. The effect of control of corruption on economic growth was found to be inconclusive. However, the indicators of voice and democratic accountability, along with rule of law, exhibited more positive effects on economic growth in the region. The findings suggest that reform efforts aimed at enhancing freedom of expression, democratic accountability, regulatory quality, political stability, and the rule of law should be prioritized, as they demonstrate greater growth-enhancing potential compared to reform efforts focused solely on combating corruption. This is particularly important given the endemic, systemic, and pervasive nature of corruption in the region (Omoteso and Mobolaji, 2014). Constantinos Alexiou, Sofoklis Vogiazas, and Nikita Solovev reassessed the relationship between institutional quality and economic growth. Employing panel cointegration and causality analysis, their study focused on 27 post-socialist economies over the period 1996–2016. Utilizing the Worldwide Governance Indicators (WGI) as a framework for assessing institutional quality, the study found that, in the long run, economic growth is positively associated with the rule of law and with voice and democratic accountability. In the short run, regulatory quality maintained a positive effect on growth, whereas voice and accountability exhibited a puzzling negative impact on economic growth, warranting further investigation (Alexiou, Vogiazas and Solovev, 2020).

Moderation of the Indirect Effect through the Agriculture, Forestry, and Fishing sector

This study indicates that public spending in education is more effective in ASEAN countries where freedom of speech and accountable democracy are upheld. Democratic governance allows citizens to elect leaders responsive to the educational needs of rural, coastal, and remote communities. Freedom of expression and independent media enable the articulation of public demands, particularly for vocational and technical education relevant to agriculture, fisheries, and forestry. As a result, governments allocate education budgets more effectively toward practical training and higher education tailored to these sectors. Freedom of association further empowers farmers', fishers', and forest communities to advocate for education aligned with their needs. Improved skills and knowledge in these communities stimulate demand for modern technologies, inputs, and support services, creating new markets for innovation and enhancing value-added in primary sectors. This dynamic contributes to broader economic growth. The study provides both theoretical and empirical insights into the relationship between fiscal policy, governance, and economic growth. It demonstrates that the effectiveness of education spending is strongly influenced by the quality of political governance. Therefore, development strategies in the five ASEAN countries should incorporate institutional reforms—particularly those advancing freedom of speech and democratic accountability—to maximize the economic returns of investment in education, especially in agriculture, fisheries, and forestry. The policy implication drawn from this study is the importance of strategically integrating freedom of speech and democracy into the allocation of education budgets. The following are studies that examine the influence of voice and democratic accountability—substantively related to democracy and freedom of expression—on public financial performance (government), education, and the agriculture, fisheries, and

forestry sectors. Monchi Lio and Meng-Chun Liu investigated the relationship between governance and agricultural performance using the World Bank's Worldwide Governance Indicators (WGI). Referring to the six dimensions of the WGI, their study examines whether differences in governance quality can explain cross-country heterogeneity in agricultural productivity. The empirical results reveal that, given the same amount of agricultural inputs, the same level of education, and similar climatic conditions, countries with better governance are able to produce higher agricultural output. Through a second methodological approach, the empirical findings from a structural equation model also support the hypothesis that better governance leads to higher labor productivity in agriculture. Furthermore, the study finds that good governance not only directly enhances agricultural productivity (i.e., with the same capital stock and land area, agricultural workers in countries with better governance produce more), but also indirectly improves productivity by promoting the accumulation of agricultural capital stock. These findings align with the argument advanced by Yujiro Hayami and Vernon W. Ruttan in their book *Agricultural Development: An International Perspective* (1985), which posits that governance is a fundamental factor explaining the poor economic performance of many developing countries. To improve agricultural performance in these countries, in addition to physical investment and education, greater emphasis must be placed on strengthening governance infrastructure (Lio and Liu, 2008).

Moderation Democratic Accountability to Government Expenditure on Health

Moderation of the Direct Effect

These findings reveal a significant negative moderating effect of freedom of speech and democratic accountability on the relationship between government health expenditure and economic growth. While public health spending is theoretically expected to promote growth, this effect weakens when governance factors are introduced. Without moderation, health spending positively contributes 3.0% to economic growth, indicating its direct potential to enhance economic performance. However, when freedom of speech and democratic accountability are included as interaction terms, the previously positive impact turns negative. This may be explained by the complex and technical nature of the health sector. Government spending in health aims to improve outcomes through healthcare services, infrastructure, and disease prevention, supporting labor productivity and long-term human capital development. Nonetheless, the effectiveness of health policies depends on rigorous analysis, strategic planning, and implementation by competent authorities. The technical complexity of health interventions may not be easily understood or accepted by the public, potentially leading to political pressure or misaligned public expectations. In democratic contexts, this could hinder optimal decision-making, thereby reducing the effectiveness of health expenditure in driving economic growth. As freedom of expression and democratic accountability increase, public expectations and political demands also rise. While these democratic features enhance transparency, they can burden policymakers and disrupt established health strategies, leading to economically suboptimal budget absorption. Several conditions illustrate how freedom of speech and high democratic intensity may weaken or even reverse the positive impact of health spending on economic growth. First, in the pursuit of political popularity, governments may prioritize large health subsidies without regard to service delivery efficiency. This misallocation diverts resources from productive investments that could enhance labor productivity. Second, health budgets may be disproportionately spent on short-term needs, such as the mass procurement of generic medicines, while underfunding long-term priorities like infrastructure and workforce development. Third, interest group pressures may fragment spending, directing funds toward specific regions or groups, thus reducing the macroeconomic impact. Fourth, frequent public or parliamentary debates on technical health policies may create uncertainty among medical professionals and administrative staff, discouraging decisive action and slowing program implementation.

These challenges highlight the need for adaptive policy design that balances democratic governance with effective fiscal management. Future research should explore how freedom of expression and democratic accountability can be harmonized with strategic health spending to ensure that such expenditures remain effective in promoting sustained economic growth.

Moderation of the Indirect Effect through the Agriculture, Forestry, and Fishing sector

This insignificance calls for further investigation into why government spending in the health sector is not a primary determinant—whether or not moderated by freedom of expression and democratic accountability—in driving economic growth through the agriculture, fisheries, and forestry sectors.

CONCLUSION

This study offers critical insights into the complex dynamics between trade, investment, government spending, and governance on economic growth in ASEAN countries, particularly through the lens of primary sectors. The nuanced findings highlight the dual nature of trade openness—its general positive effect on growth contrasted with its negative impact through agriculture, forestry, and fisheries—suggesting the need for sector-specific trade strategies. The statistically insignificant role of FDI calls for further inquiry into sectoral allocation, absorptive capacities, and regulatory frameworks. The robust positive effects of government spending on education, both directly and through primary sectors, underscore its strategic importance in fostering inclusive, skill-driven growth. Conversely, health expenditure, while beneficial overall, lacks significant sectoral impact, indicating potential inefficiencies or misalignments. Notably, the moderation effect of voice and accountability enhances the benefits of education spending but complicates the role of health investment. These findings can inform more targeted public policies and invite future research into mechanisms of democratic governance, the quality of investment, and sectoral linkages—particularly how institutional frameworks mediate or distort policy effectiveness in different economic domains.

REFERENCE

1. Abdelbary, I. and Benhin, J. (2019) 'Governance, capital and economic growth in the Arab Region', *Quarterly Review of Economics and Finance*, 73, pp. 184–191. Available at: <https://doi.org/10.1016/j.qref.2018.04.007>.
2. Acemoglu, D. et al. (2019) 'Democracy Does Cause Growth', *Journal of Political Economy*, 127(1), pp. 47–100. Available at: <https://doi.org/10.1086/700936>.
3. Acemoglu, D. and Robinson, J.A. (2010) *The Role of Institutions in Growth and Development*, *Review of Economics and Institutions*. Available at: <https://doi.org/10.5202/rei.v1i2.1>.
4. Agazu, B.G. and Kero, C.A. (2024) 'Innovation strategy and firm competitiveness: a systematic literature review', *Journal of Innovation and Entrepreneurship*, 13(1), p. 24. Available at: <https://doi.org/10.1186/s13731-024-00381-9>.
5. Ahuja, A., Naseemullah, A. and Ostermann, S. (2021) 'Anticorruption Politics versus Democratic Deepening and Welfare in India', *Asian Survey*, 61(5), pp. 825–853. Available at: <https://doi.org/10.1525/as.2021.1422538>.
6. Akpan-Obong, P.I. et al. (2023) 'E-Governance as good governance? evidence from 15 West African countries', *Information Technology for Development*, 29(2–3), pp. 256–275. Available at: <https://doi.org/10.1080/02681102.2022.2123770>.
7. Albassam, B.A. (2022) 'Government spending and economic growth in the Middle East and North Africa region', *International Review of Administrative Sciences*, 88(4), pp. 1124–1140. Available at: <https://doi.org/10.1177/0020852320969802>.
8. Alexiou, C., Vogiazas, S. and Solovev, N. (2020) 'Economic growth and quality of institutions in 27 postsocialist economies', *Journal of Economic Studies*, 47(4), pp. 769–787. Available at: <https://doi.org/10.1108/JES-02-2019-0069>.
9. Alvarado, R., Iñiguez, M. and Ponce, P. (2017) 'Foreign direct investment and economic growth in Latin America', *Economic Analysis and Policy*, 56, pp. 176–187. Available at: <https://doi.org/10.1016/j.eap.2017.09.006>.
10. Amna Intisar, R. et al. (2020) 'Impact of Trade Openness and Human Capital on Economic Growth: A Comparative Investigation of Asian Countries', *Sustainability*, 12(7), p. 2930. Available at: <https://doi.org/10.3390/su12072930>.
11. Anh, N.N., Minh, N.N. and Tran-Nam, B. (2016) 'Corruption and economic growth, with a focus on Vietnam', *Crime, Law and Social Change*, 65(4–5), pp. 307–324. Available at: <https://doi.org/10.1007/s10611-016-9603-0>.
12. Arugay, A.A. and Baquisal, J.K.A. (2023) 'Bowed, Bent, & Broken: Duterte's Assaults on Civil Society in the Philippines', *Journal of Current Southeast Asian Affairs*, 42(3), pp. 328–349. Available at: <https://doi.org/10.1177/18681034231209504>.
13. Arugay, A.A. and Slater, D. (2019) 'Polarization Without Poles: Machiavellian Conflicts and the Philippines' Lost Decade of Democracy, 2000–2010', *Annals of the American Academy of Political and Social Science*, 681(1), pp. 122–136. Available at: <https://doi.org/10.1177/0002716218810385>.
14. Asian Development Bank (2021) *COVID-19 and Labor Markets in Southeast Asia*: Manila, Philippines. Available at: <https://doi.org/10.22617/TCS210508-2>.
15. Asirvatham, J. et al. (2017) 'IMPACT OF FOREIGN DIRECT INVESTMENT, IMPORTS AND TARIFF DEREGULATION ON EXPORTS AMONG PIONEERING ASEAN MEMBERS: PANEL DATA ANALYSIS', *International Journal of Business and Society*, 18(1). Available at: <https://doi.org/10.33736/ijbs.486.2017>.

16. Azman-Saini, W.N.W., Baharumshah, A.Z. and Law, S.H. (2010) 'Foreign direct investment, economic freedom and economic growth: International evidence', *Economic Modelling*, 27(5), pp. 1079–1089. Available at: <https://doi.org/10.1016/j.econmod.2010.04.001>.
17. Baek, N. (2023) *ASEAN-5: Further Harnessing the Benefits of Regional Integration amid Fragmentation Risks*, *IMF Working Papers*. Available at: <https://doi.org/10.5089/9798400253706.001>.
18. Belloumi, M. and Alshehry, A. (2020) 'The Impact of International Trade on Sustainable Development in Saudi Arabia', *Sustainability*, 12(13), p. 5421. Available at: <https://doi.org/10.3390/su12135421>.
19. Bernhard, M. et al. (2015) *Party Strength and Economic Growth*, *SSRN Electronic Journal*. Available at: <https://doi.org/10.2139/ssrn.2657399>.
20. Bhasin, S. and Kumar, B. (2022) 'ASEAN—The Geopolitical Factors and Its Impact on Growth of the Region', in *Cultural Entrepreneurship*. Singapore: Springer Nature Singapore, pp. 67–74. Available at: https://doi.org/10.1007/978-981-19-2771-3_6.
21. Bhowmik, R., Zhu, Y. and Gao, K. (2021) 'An analysis of trade cooperation: Central region in China and ASEAN', *PLoS ONE*, 16(12 December), pp. 1–25. Available at: <https://doi.org/10.1371/journal.pone.0261270>.
22. Breton, T.R. (2013) 'The role of education in economic growth: theory, history and current returns', *Educational Research*, 55(2), pp. 121–138. Available at: <https://doi.org/10.1080/00131881.2013.801241>.
23. Briguglio, L.P., Vella, M. and Moncada, S. (2019) 'Economic growth and the concept of diminishing marginal governance effect', *Journal of Economic Studies*, 46(4), pp. 888–901. Available at: <https://doi.org/10.1108/JES-04-2018-0146>.
24. Bunyavejchewin, P. and Sirichuanjun, K. (2021) 'How regime type and governance quality affect policy responses to COVID-19: A preliminary analysis', *Heliyon*, 7(2), p. e06349. Available at: <https://doi.org/10.1016/j.heliyon.2021.e06349>.
25. Caballero-Anthony, M. and Emmers, R. (2022) 'Keeping the peace in Southeast Asia: ASEAN and the quest for positive peace', *Pacific Review*, 35(6), pp. 1079–1104. Available at: <https://doi.org/10.1080/09512748.2022.2075440>.
26. Chiengkul, P. (2019) 'Uneven development, inequality and concentration of power: a critique of Thailand 4.0', *Third World Quarterly*, 40(9), pp. 1689–1707. Available at: <https://doi.org/10.1080/01436597.2019.1612739>.
27. Chiles, R.M. et al. (2021) 'Democratizing ownership and participation in the 4th Industrial Revolution: challenges and opportunities in cellular agriculture', *Agriculture and Human Values*, 38(4), pp. 943–961. Available at: <https://doi.org/10.1007/s10460-021-10237-7>.
28. Cirillo, V. and Molero Zayas, J. (2019) 'Digitalizing industry? Labor, technology and work organization: an introduction to the Forum', *Journal of Industrial and Business Economics*, 46(3), pp. 313–321. Available at: <https://doi.org/10.1007/s40812-019-00126-w>.
29. Colagrossi, M., Rossignoli, D. and Maggioni, M.A. (2020) 'Does democracy cause growth? A meta-analysis (of 2000 regressions)', *European Journal of Political Economy*, 61, p. 101824. Available at: <https://doi.org/10.1016/j.ejpoleco.2019.101824>.
30. Connolly, M. and Li, C. (2016) 'Government spending and economic growth in the OECD countries', *Journal of Economic Policy Reform*, 19(4), pp. 386–395. Available at: <https://doi.org/10.1080/17487870.2016.1213168>.
31. Cox, G.W. and Weingast, B.R. (2018) 'Executive Constraint, Political Stability, and Economic Growth', *Comparative Political Studies*, 51(3), pp. 279–303. Available at: <https://doi.org/10.1177/0010414017710254>.
32. Detotto, C., Giannoni, S. and Goavec, C. (2021) 'Does good governance attract tourists?', *Tourism Management*, 82(March 2020), p. 104155. Available at: <https://doi.org/10.1016/j.tourman.2020.104155>.
33. Donovan, K. and Schoellman, T. (2023) 'The role of labor market frictions in structural transformation*', *Oxford Development Studies*, 51(4), pp. 362–374. Available at: <https://doi.org/10.1080/13600818.2023.2276702>.
34. Edwards, L. (2020) 'Transparency, Publicity, Democracy, and Markets: Inhabiting Tensions Through Hybridity', *American Behavioral Scientist*, 64(11), pp. 1545–1564. Available at: <https://doi.org/10.1177/0002764220945350>.
35. Ehrlich, I. and Yin, Y. (2013) 'Equilibrium Health Spending and Population Aging in a Model of Endogenous Growth: Will the GDP Share of Health Spending Keep Rising?', *Journal of Human Capital*, 7(4), pp. 411–447. Available at: <https://doi.org/10.1086/675640>.
36. Emam, M.A., Leibrecht, M. and Chen, T. (2021) 'Fish Exports and the Growth of the Agricultural Sector: The Case of South and Southeast Asian Countries', *Sustainability*, 13(20), p. 11177. Available at: <https://doi.org/10.3390/su132011177>.
37. Felipe, J. (2012) 'Asian Development Bank Economics Working Paper Series Tracking the Middle-Income Trap : What is It , Who is in It , and Why? Part 1', *Asian Development Bank Economics Working Paper*, (306) [Preprint], (306). Available at: <https://www.adb.org/sites/default/files/publication/29804/economics-wp-306.pdf>.
38. Garrido, M. (2020) 'Democracy as Disorder: Institutionalized Sources of Democratic Ambivalence Among the Upper and Middle Class in Manila', *Social Forces*, pp. 1–24. Available at: <https://doi.org/10.1093/sf/soaa046>.
39. Gerber, S.D. (2004) 'THE POLITICS OF FREE SPEECH', *Social Philosophy and Policy*, 21(2), pp. 23–47. Available at: <https://doi.org/10.1017/S026505250421202X>.
40. Glas, A. (2021) 'Diplomacy in the ASEAN', in *International Relations*. Oxford University Press. Available at: <https://doi.org/10.1093/obo/9780199743292-0304>.
41. Glawe, L. and Wagner, H. (2016) 'The middle-income trap: Definitions, theories and countries concerned - A literature survey', *Comparative Economic Studies*, 58(4), pp. 507–538. Available at: <https://doi.org/10.1057/s41294-016-0014-0>.
42. Ha, D. et al. (2020) 'Banking integration in ASEAN-6: An empirical investigation', *Economic Modelling*, 91(July), pp. 705–719. Available at: <https://doi.org/10.1016/j.econmod.2019.09.017>.
43. Hadj Fraj, S., Hamdaoui, M. and Maktouf, S. (2018) 'Governance and economic growth: The role of the exchange rate regime', *International Economics*, 156, pp. 326–364. Available at: <https://doi.org/10.1016/j.inteco.2018.05.003>.

44. Heckscher, E.F. (2007) *Mercantilism, Volume I (First published in Swedish, 1931)*. New York, NY: Routledge. Available at: <https://altexploit.wordpress.com/wp-content/uploads/2017/07/eli-f-heckscher-mercantilism-vol-1-routledge-1994.pdf>.
45. Hemel, D. (2021) 'Economic Perspectives on Free Speech', in *The Oxford Handbook of Freedom of Speech*. Oxford University Press, pp. 118–136. Available at: <https://doi.org/10.1093/oxfordhb/9780198827580.013.7>.
46. Jeong, S., Lee, Y. and Kang, S.H. (2020) 'Government spending and sustainable economic growth: based on first- and second-level COFOG data', *Public Money & Management*, 40(2), pp. 140–148. Available at: <https://doi.org/10.1080/09540962.2019.1651035>.
47. Kaufmann, D. et al. (2005) *Governance Matters IV: Governance Indicators for 1996-2004*, World Bank Policy Research Working Paper 3630. Washington, D.C. 20433, U.S.A. Available at: <http://econ.worldbank.org/www.worldbank.org/wbi/governance/govdata/>. The Appendices and a synthesis of the paper are available at: www.worldbank.org/wbi/governance/pubs/govmatters4.html.
48. Kaufmann, D. et al. (2007) *Answering the Critics: Answering the Critics*, World Bank Policy Research Working Paper 4149. World Bank Policy Research Working Paper (WPS4149). Washington, DC 20433, USA. Available at: <https://doi.org/10.1596/1813-9450-4149>.
49. Kaufmann, D. (2012) 'Corruption in transition: reflections & implications from governance empirics', in *Presentation at the opening plenary session on Measurement & Consequences of Corruption at the Economic Research Forum (ERF) 18th Annual Conference, Cairo, Egypt, March 25th, 2012*. Cairo, Egypt.: Brookings Institution, pp. 1–38. Available at: <https://www.brookings.edu/wp-content/uploads/2016/07/ERF-18th-Conf-Cairo-Kaufmann.pdf>.
50. Kaufmann, D. and Kraay, A. (2002) 'Growth without Governance', *Economía*, 3(1), pp. 169–229. Available at: <https://doi.org/10.1353/eco.2002.0016>.
51. Kaufmann, D. and Kraay, A. (2008) 'Governance indicators: Where are we, where should we be going?', *World Bank Research Observer*, 23(1), pp. 1–30. Available at: <https://doi.org/10.1093/wbro/lkm012>.
52. Kaufmann, D., Kraay, A. and Zoido-lobatón, P. (1999) 'Governance Matters', *World Bank Policy Research Working Paper*, (August), pp. 1–61. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=188568.
53. Kaufmann, D., Kraay, A. and Zoido, P. (2005) *Aggregating Governance Indicators*, *SSRN Electronic Journal*. Available at: <https://doi.org/10.2139/ssrn.188548>.
54. Ke, Y. (2024) 'ASEAN Four's middle income trap dilemma: evidence of the middle technology trap', *Asian Review of Political Economy*, 3(1), p. 14. Available at: <https://doi.org/10.1007/s44216-024-00033-5>.
55. Khuu, D.T., Jones, P.J. and Ekins, P. (2021) 'A Governance analysis of Con Dao National Park, Vietnam', *Marine Policy*, 127(April), p. 103986. Available at: <https://doi.org/10.1016/j.marpol.2020.103986>.
56. Khyareh, M.M. and Amini, H. (2021) 'Governance Quality, Entrepreneurship and Economic Growth', *Journal of Competitiveness*, 13(2), pp. 41–64. Available at: <https://doi.org/10.7441/joc.2021.02.03>.
57. Koirala, N.P. et al. (2024) 'Financial Development, Financial Openness, and Policy Effectiveness', *Journal of Risk and Financial Management*, 17(6), p. 230. Available at: <https://doi.org/10.3390/jrfm17060230>.
58. Kreiterling, C. (2023) 'Digital innovation and entrepreneurship: a review of challenges in competitive markets', *Journal of Innovation and Entrepreneurship*, 12(1), p. 49. Available at: <https://doi.org/10.1186/s13731-023-00320-0>.
59. Krugman, P., Obstfeld, M. and Melitz, M. (2017) 'International Economics: Theory and Policy, the latest edition'. Addison-Wesley.
60. Krugman, P.R. (1978) *The Theory of Interstellar Trade*. Princeton-New Jersey. Available at: <https://www.princeton.edu/~pkrugman/interstellar.pdf>.